

Deutsches Referenzbüro für Ringversuche und Referenzmaterialien

# summary of all product catalogues

2024 / 2025

for further information please use the following product catalogues



Deutsches Referenzbüro für Ringversuche und Referenzmaterialien

# **Food and Feed**

# product catalogue 2024 / 2025



Image source: margouillat photo/Shutterstock.com chemical-physical

organoleptic

molecular biologicalimmunological

safety parameters and adulterants

#### In the fields:

- Milk products / dairy products
- Fruit and vegetable products / egg products
- Beverages
- Meat and fish
- Cereal and cereal products
- İnfant formula

other food stuff such as

- Chocolate
- Honey
- Edible fat
- Animal feed
- GMO
- Declaration nutritional values
- vegan and vegetarian substitutes

## Index

11

General information	1
The DRRR	4
News	5
ODIN - proficiency testing online	6
Proficiency testing organsation	7
Benefits of proficiency testing	8
Statistical methods	9
z'-score > 2: What to do?	10

proficiency testing

**PROFICIENCY TESTING** 

reference material 39

39

40

45

46

47

48

49

50

51

53

53

54

54

55

57

58

60

61

62

chemical-physical

Other milk products

Alcoholic beverages

Non-alcoholic beverages

Milk and cream

Cheese

Milk powder

Egg products

Meat products

Infant formula

Animal feed

Drinking water

Fish and seafood

Other food matrices

Honey and beeswax

Cereal / cereal products

#### **REFERENCE MATERIAL**

Long-term calibration material

Fruit and vegetable products

Declaration nutritional values

chemical-physical	12
Milk and cream	12
Cheese	13
Other milk products	14
Milk powder	15
Fruit and vegetable products	16
Alcoholic beverages	18
Non-alcoholic beverages	19
Egg products	21
Declaration nutritional values	21
Meat products	22
Fish and seafood	22
Cereal / cereal products	23
Infant formula	25
Other food matrices	26
vegan and vegetarian substitutes	29
Honey and beeswax	30
Animal feed	31
Drinking water	32

#### **REFERENCE MATERIAL**

molecular biological-immunological	63

- Determination of animal species 63
  - GMO 64

## **PROFICIENCY TESTING**

Environment

molecular biological-immunological	33
Determination of animal species	33
GMO	34

# Index

#### **REFERENCE MATERIAL**

organoleptic	65
Ranking test	65
Triangle test	65
Threshold value	66
Descriptive testing	66

Other products / services 67

#### Order form 68

#### **PROFICIENCY TESTING**

organoleptic	35
Ranking test	35

- Triangle test 36
- Threshold value 37
- Descriptive testing 37

## Registration form 38

additional information	69
Quality management / quality assurance	69
Seminars / training / consulting	70
Sales terms and delivery conditions	72
General terms and conditions	73

Deutsches Referenzbüro für Ringversuche und Referenzmaterialien GmbH (DRRR GmbH)

#### **Proficiency testing provider**

The DRRR offers laboratories from the processing industry as well as official and private laboratories all aspects of quality assurance from one single source. Our focus is on food, consumer goods, packaging, building materials, plastics (polymers) and textiles, as well as microbiological analysis in these categories.

#### Accreditation ISO/IEC 17043:2010 (A2LA)

The DRRR is an accredited proficiency testing provider by A2LA according to ISO/IEC 17043:2010. The accreditation is only valid for the matrices/parameters listed on the A2LA scope of accreditation certificate [#5494.01].

Whether a proficiency test is covered or not covered by the scope of accreditation by A2LA can be viewed in our online portal (ODIN).

#### Accreditation DIN EN ISO/IEC 17043:2010 (DAkkS)

The DRRR is an accredited proficiency testing provider by DAkkS according to DIN EN ISO/IEC 17043:2010. The accreditation is valid only for the scope listed in the annex of the accreditation certificate [D-EP-17063-01-00].

Whether a proficiency test is covered or not covered by the scope of accreditation by DAkkS can be viewed in our online portal (ODIN).



Deutsches Referenzbüro für Ringversuche und Referenzmaterialien

#### More than 500 PT's in 2023

#### Accredited PT-provider



#### **Reference material producer**

We offer many certified reference materials as well as advise on quality matters and quality assurance training in the laboratory and the production.

#### **Customer support**

We provide advice to our customers in all question of validation of chemicalphysical, microbiological, organoleptic and physical-mechanical analysis or statistical questions. High-quality reference material

Any time competent contact persons

#### **Perfluorinated compounds**

2024 the DRRR GmbH offers you a comprehensive proficiency testing program in the field of perfluorinated compounds (PFAS). These very stable and in the environment persistent chemicals are used in many different areas. They have immunosuppressive effects on humans and some of these substances can act as endocrine disruptors and are carcinogenic. Therefore, EFSA has set a toxicological threshold of 0.0044 µg/kg bw per week for the 4 main PFAS representatives in 2020 for food. More recently, the EU has introduced maximum levels for PFAS for the first time (EU 2022/2388) and guidance values (EU 2022/1431) for different food groups. In addition, the topic has been strongly covered by the media and has reached the awareness of the public. We offer proficiency tests in all relevant matrix groups: Drinking Water, Feed, Fish and Seafood, Infant Food, Environment, Egg Products, Textiles, Leather and Paper / Cardboard. The PFAS concentrations are adapted to the matrix (ng/kg, µg/kg, mg/kg) and the following PFAS are requested: CAS 1763-23-1 (perfluorooctanesulfonic acid), CAS 335-67-1 (perfluorooctanoic acid), CAS 375-95-1 (perfluoronnanoic acid), CAS 355-46-4 (perfluorohexanesulfonic acid).

#### Environment

In our new proficiency tests in the field of environmental biodegradability, we query rapid as well as inherent biodegradability, and complete aerobic and anaerobic biodegradability of plastic materials. The new proficiency tests are as follows:

- CO2 evolution test (ISO 9439, OECD 301B).
- Zahn-Wellens, EMPA test (ISO 9888, OECD 302B)
- Determination of aerobic biodegradation of plastics (ISO 14855-2, ASTM D5338-15)
- Determination of anaerobic biodegradation of plastics (ASTM D 5511)

#### **Pesticides**

The DRRR offers you a comprehensive pesticide programme from 2024. The proficiency test design takes into account customer requirements in collaboration with the recommendations of leading experts in pesticides analysis.

The proficiency test sample design is constructed with 3 samples each, so that 2 different concentration ranges and a blank sample are covered.

With the DRRR proficiency tests from the pesticide program, you benefit from the following advantages, among others:

- important requirements for method validation according to SANTE 11312/2021 (1) fulfilled

- all relevant matrix groups (1.-9.) according to SANTE 11312/2021 (1) available

- use of current pesticides according to EU monitoring program

- full analyte list available in the appendix 1 and via DRRR website: <a href="http://www.drrr.de/en/proficiency-testing/food-and-feed/">www.drrr.de/en/proficiency-testing/food-and-feed/</a>

- laboratory evaluations considering the 70-120 recovery interval according to SANTE 11312/2021 (1)

- evaluation with state of the art statistics

- fast reporting after end of result submission

(1) SANTE 11312/2021 Analytical quality control and method validation procedures for pesticide residues analysis in food and feed.

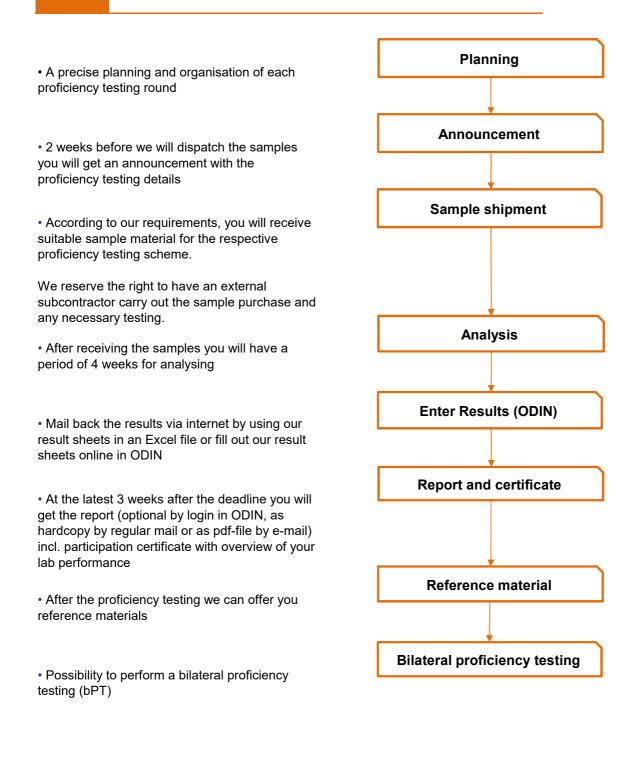
6

Simply brilliant, your proficiency testing with ODIN (Online Data Information Network).	€
<ul> <li>Fast and easy online registration / online announcement in our online catalogue</li> </ul>	Book Ringtrials Online
<ul> <li>Direct management and booking of the proficiency testing</li> </ul>	
• Overview about the registered proficiency testing schemes	Proficiency testing catalog
<ul> <li>Fast and secure submission of your results via</li> <li>ODIN</li> </ul>	
<ul> <li>Online access to individual customers reports and certificates</li> </ul>	Enter Results Online
<ul> <li>Supervisor rights available to overview all PTs</li> <li>of a multi-site company</li> </ul>	Booked proficiency testings
<ul> <li>Saving of costs through booking and submission of your results via ODIN</li> </ul>	
Secure payment with IRIS (Internet Remuneration Information Service).	Download Reports and Certificates
<ul> <li>Easy and safe payment by credit card</li> </ul>	Booked proficiency testings
• Overview about all invoices	

Fast and secure online access

You can also pay your invoice via banktransfer or bank check.

# **Proficiency testing organisation**



#### Why take part in proficiency testing?

• Participation in proficiency testing schemes is required by international standards or national facilities, organizations and customers

• Participants can compare, assure and improve their own performance and quality against other laboratories worldwide

• Laboratories can recognize how well they have been completed with the applied method compared to the other laboratories

- · Saving on the costs of testing
- Unquestionable lab performance towards customers, authorities and certification authorities
- Saving on the costs of lab development and maintenance
- Saving on the costs of lab development and maintenance
- Saving on production costs by avoiding waste of raw material

# Your benefits in DRRR proficiency testing schemes

• Objective and independent impression of your quality and your performance of your routine testing method compared to the other participating laboratories

• Saving the costs, because you have the opportunity to analzye more samples and more parameters in one proficiency testing

• External demonstration of your performance with the results of the proficiency testing

• Build up of your own external quality assurance system with our statistical tools (contains statistical control charts, MS-Excel evaluation files and reference materials). With these tools incorporated your external quality assurance rays unmatched confidence

• Detailed planning and organization of your proficiency testing and an easier, faster and better communication with us



Image source: iStock.com/3dts

## **Statistical methods**

#### We work according to:

- ISO Guide 31 / 35
- DIN EN ISO 17034
- DIN EN ISO/IEC 17020 / 17025 / 17043
- ISO 13528

#### Laboratory performance:

by calculation of the following paramters:

- z-score
- z'-score
- CRD-Wert

#### **Statistical models:**

Depending on the type of the distribution of the data, different statistic models are used:

- Conventional statistics (all values)
- Conventional statistics (no outliers)
- Robust statistics (Hampel estimator, Q-method)
- Robust statistics (Median, MAD/nIQR)
- Expert laboratory (expert decision)

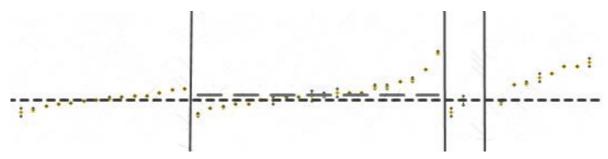
Homogenous and stable sample material

Calculation of precision data acc. to ISO 5725-2 in many proficiency testing schemes

Selection of statistical method with the chi<sup>2</sup>-fit test

# Method-specific evaluation according to the reference method (if available)

# Additional extended method evaluation (in case data are available)



# You are not satisfied with your laboratory performance: What can you do?

Due to your showed laboratory performance you have been asked by the accreditation body, the monitoring authority or your customer to initiate measures to improve your laboratory performance.

These measures are often connected with considerable efforts in the laboratory and you only have a short time frame. In many cases the proof of a successful measure processing, by participation in a new proficiency testing round, is only possible in the following year. Until now it does not exist a possibility for a spontaneous performance review to equalize a previous unsatisfactory proficiency testing result.

# New: The bilateral proficiency testing (bPT)!

You can book and perform individually and flexibly the bilateral proficiency testing during a determined time period.

You receive a proficiency testing sample for analyzing. You submit the results of the testing. After that you will get your proof of performance as a z'-score calculation in the form of a certificate within 1 - 2 weeks.

The performance evaluation refers to the previous regular proficiency testing, so that you can connect the bPT to the regular proficiency testing round. The used sample material is derived from a previous proficiency testing round and provides the possibility of a comparable performance evaluation with the regular proficiency testing.

#### Your terms and conditions:

Participation in a bPT is open to all laboratories. Prior participation in our regular proficiency tests is not necessary.

The report of this proficiency testing is not older than ten weeks. You register within these ten weeks for the bPT and the performance is confirmed by the DRRR. The testing period is dependent on the technical factors (parameter, matrix etc.) and will be agreed individually\*. When this time is over after the sample shipment and you do not have sent us your results in this time, we can not evaluate your results and issue a certificate for you.

(\* normally not longer than 1 - 2 weeks) The bPT is not in the scope of accreditation of the DRRR. The realization of the bPT depends on the availability of the material.

#### Costs bPT

The costs are identical to the costs of the respective proficiency test from our standard program (see ODIN) plus shipping costs.

Alternative you can also order reference material.

#### **Food industry**

The DRRR offers in the field of the quality assurance for the chemical analysis a variety of different primary, intermediate and final products for the food and packaging industry.

The laboratories can secure their analytics with the DRRR services as well as main parameters like fat, protein and dry matter and side and trace parameters.

- Milk and milk products
- Fruit and fruit juices
- Sweets and pastries
- Food of animal origin
- Meat and egg products
- Animal feed

#### Safety parameters and adulterants

For the quality assurance in the field the chemical analysis of safety parameters and adulterants the DRRR offers a variety of different parameter-matrix-combinations.

#### **Statistical evaluation**

Take advantage of our statistical evaluation system. The evaluation of the proficiency testing is based on the highest scientific and statistical level. Therefore the participating laboratories have a very precise feedback on their actual performance.

#### **Laboratory Measurement**

By using our market-leading statistical evaluation, additional information such as laboratory uncertainty and various scattering of each laboraotires can be presented. Mycotoxins

- Residues
- Allergens

Market-leading statistical evaluation

Art. No.	proficiency testing type <sup>[A]</sup>	requested parameters	period	To view pricing information visit our online Portal:
2010007	UHT milk 1	fat, dry matter, protein, lactose, freezing point, density (3 different levels of fat content in PT round)	Apr-24	Login or register
2010366	UHT milk 2	fat, dry matter, protein, lactose, freezing point, lactulose, water activity (3 different levels of fat content in PT round)	Sep-24	
2010368	UHT milk 3	fat, dry matter, protein, lactose, freezing point, density (3 different levels of fat content in PT round)	Dec-24	
2010107	UHT milk (lactose free)	lactose (< 0,1 %)	May-24	
2010015	raw milk 1	fat, dry matter, protein, lactose, freezing point, urea, pH value, casein	Jan-24	
		point, drea, pri value, casein	Jan-25	
2010005	raw milk 2	fat, dry matter, protein, lactose, freezing point, pH value, urea, casein	Jun-24	
2010370	raw milk 3	fat, dry matter, protein, lactose, freezing point, casein, urea	Oct-24	
2010372	goat's milk	fat, protein, freezing point	Aug-24	
2010003	raw cream 1		Feb-24	
2010003	raw cream 1	fat, dry matter, protein	Feb-25	
2010374	raw cream 2		Jul-24	
2010041	evaporated milk	fat, dry matter, protein, ash, phosphorus	Jul-24	
2010624	buttermilk	phosphatides, fat, dry matter, ash, pH value, acidity acc. Soxhlet-Henkel, density in heat serum	Apr-24	
2010702	dairy drinks	fat, dry matter, protein, sucrose, glucose, lactose, fructose, total sugar (sum of glucose, fructose, sucrose)	May-24	
2010045	milk (residues)	chloramphenicol, PCB 101, trichlormethane, aflatoxin M1, streptomycine, tetracycline (minimum 4 of the parameters quantitative)	Apr-24	
2010951	Inhibitors in milk	quant. determination of one antibiotic each from the substance groups sulfonamides, penicillins, cephalosporins, quinolones.	Aug-24	
2011117	pesticides in raw milk	This is a multi-residue proficiency testing. For the proficiency testing schemes on pesticides/ pesticide residues, a pre-selection of pesticides has been made according to relevance: viewable in the list of analytes published by the DRRR in Annex 1. From this list, a selection of pesticides will be available for identification and quantification in the proficiency testing.	Nov-24	

#### milk and cream

For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (<u>www.DRRR.de</u>). You can also use the registration forms on page 38 of this catalogue.

#### cheese

13

Art. No.	proficiency testing type <sup>[A]</sup>	requested parameters	period	To view pricing information visit our online Portal:
2010378	processed cheese 3	fat, dry matter, protein, lactose, total phosphorus, ash, sodium chloride, nitrate, pH-value, citric acid, total lactic acid	Sep-24	<u>Login or register</u>
2010258	processed cheese	natamycin, aflatoxin M1	May-24	
2010029	fresh cheese 1	fat, dry matter, protein, total lactic acid	Apr-24	
2010164	curd	fat, dry matter, protein, total lactic acid	Oct-24	
2010047	semi hard cheese	fat, dry matter, protein, sodium chloride, nitrate	May-24	
2010031	hard cheese	fat, dry matter, protein, sodium chloride	Feb-24	
2010001			Feb-25	
2010037	soft cheese	fat, dry matter, protein, sodium chloride, pH value	May-24	

[A] = For accredited and non-accredited status please see Online portal (ODIN)

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For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (<u>www.DRRR.de</u>). You can also use the registration forms on page 38 of this catalogue.

Art. No.	proficiency testing type <sup>[A]</sup>	requested parameters	period	To view pricing information visit our online Portal:
2010009	butter	solids non-fat, water content, hardness, pH value, cholesterol, fat, optional chloride (depends on the condition of the butter)	Sep-24	Login or register
2010382	butter (fatty acid profile)	fatty acid composition C4-C20	Sep-24	
2010017	yoghurt	fat, dry matter, protein, pH value, total lactic acid	Nov-24	
2010049	whey	fat, dry matter, protein, NPN, lactose, ash,	Feb-24	
2010049	wney	phosphorus, potassium, calcium	Feb-25	
2010852	whey concentrate	fat, dry matter, protein, lactose, ash	Jul-24	
2010087	nudding doooort	fat, dry matter, protein, lactose, pH value	Feb-24	
2010087	pudding - dessert	rat, dry matter, protein, lactose, pri value	Feb-25	
2010091	AMF - anhydrous milk fat	alkalinity, free fatty acids, water content, peroxide value, carotene, butyric acid methyl ester	Apr-24	
3010012	ice-cream	quantitative parameters: fat, milkfat, colouring agent E 124 (cochenille red A), vanillin, vanillic acid, p- hydroxybenzaldehyde, p-hydroxybenzoic acid, lactose qualitative parameters°: colouring agent E 100 (curcumin), foreign fat, colouring agent ß-carotene (E 160) <sup>•</sup> The qualitative part of this proficiency testing scheme is not in the scope of accreditation.	Sep-24	
2010170	sour cream - crème fraiche	fat, dry matter, protein, pH value	Apr-24	

## other milk products

14

For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (<u>www.DRRR.de</u>). You can also use the registration forms on page 38 of this catalogue.

Art. No.	proficiency testing type <sup>[A]</sup>	requested parameters	period	To view pricing information visit our online Portal:
2010027	whole milk powder	fat, free fat, moisture content, protein, lactose, ash, titratable acidity, pH value, WPNI	Apr-24	Login or register
2010001	skimmed milk powder	fat, water content, protein, lactose, ash, titratable acidity, pH value, WPNI	Sep-24	
2010123	milk powder (lactose reduced)	lactose, moisture	Dec-24	
2010113	milk powder nitrate - nitrite	nitrate, nitrite	Aug-24	
2010023	where nourder	value, titratable acidity	Mar-24	
2010023	whey powder		Mar-25	
2011162	Aflatoxin M1 in milk powder	Aflatoxin M1	Oct-24	

## milk powder

15

Art. No.	proficiency testing type <sup>[A]</sup>	requested parameters	period	To view pricing information visit our online Portal:
2010051	sugar mix (fruit preparation)	sucrose, glucose, fructose, maltose, starch, aspartame, acesulfam K, sorbate, saccharin, total sugar (sum of glucose, fructose, sucrose)	Jul-24	Login or register
2010053	fruit preparation	brix-value, pH value, total acid, citric acid, L-malic acid, ash, phosphorus, potassium	Sep-24	
2010384	sauerkraut	ascorbic acid, titratable total acid, volatile acid, lactic acid, pH-value, sodium chloride, non volatile acid	Jun-24	
2010386	dried fruits	SO <sub>2</sub> (sulphur dioxide)	Jun-24	
2010388	dry potato product	water content, fat, saturated fatty acids, protein, ash, carbohydrates, starch, sucrose, fibre, sodium	Aug-24	
2010390	tomato ketchup 1	pH-value, titratable acid, citric acid, sodium chloride, glucose, fructose, soluble dry matter, dry matter, sorbic acid, benzoic acid, sucrose (anhydrous), total sugar (sum of glucose, fructose, sucrose)	Jul-24	
2010325	tomato ketchup 2	lycopene	Jul-24	
2010704	hot sauce	Capsaicin, dihydrocapsaicin, nordihydrocapsaicin, total capsaicinoids	Jun-24	
2010190	legumes	fat, water content, fibre, nitrogen content, crude protein content	Aug-24	
2010943	Solvent residues in food	At least 3 different solvents quantitatively, e.g. benzene, toluene, xylene	Jun-24	
2011086	Vegetable chips	Fat, dry matter, ash, protein, acrylamide, sodium chloride	May-24	

## fruit and vegetables products

16

For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (<u>www.DRRR.de</u>). You can also use the registration forms on page 38 of this catalogue.

Art. No.	proficiency testing type <sup>[A]</sup>	requested parameters	period	To view pricing information visit our online Portal:
2011093	Alternaria toxins in tomato products	Alternariol (AOH), Alternariol monomethyl ether (AME), Tenuazonic acid (TEA), Tentoxin (TEN)	Nov-24	Login or register
2011097	Acrylamide in potato products	acrylamide	May-24	
2011089	Pesticides in pome fruit	This is a multi-residue proficiency testing. For the proficiency testing schemes on pesticides/ pesticide residues, a pre- selection of pesticides has been made according to relevance: viewable in the list of analytes published by the DRRR in Annex 1. From this list, a selection of pesticides will be available for identification and quantification in the proficiency testing.	Sep-24	
2011088	Pesticides in fruiting vegetables	This is a multi-residue proficiency testing. For the proficiency testing schemes on pesticides/ pesticide residues, a pre- selection of pesticides has been made according to relevance: viewable in the list of analytes published by the DRRR in Annex 1. From this list, a selection of pesticides will be available for identification and quantification in the proficiency testing.	Sep-24	
2011111	Pesticides in citrus fruit	This is a multi-residue proficiency testing. For the proficiency testing schemes on pesticides/ pesticide residues, a pre- selection of pesticides has been made according to relevance: viewable in the list of analytes published by the DRRR in Annex 1. From this list, a selection of pesticides will be available for identification and quantification in the proficiency testing.	Sep-24	

## fruit and vegetables products

17

[A] = For accredited and non-accredited status please see Online portal (ODIN)

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Art. No.	proficiency testing type <sup>[A]</sup>	requested parameters	period	To view pricing information visit our online Portal:
2010408	fruit spirit	relative density 20 °C / 20 °C, alcohol, ethyl carbamate, ferment accompanying	Mar-24	Login or register
2010400		substances	Mar-25	
2010133	beer	apparent extract, extract, alcohol content in weight per cent and volume per cent, wort, density, bitterness units, pH value	Jul-24	
2010323	carbonated soft drinks	carbonation (CO2 content), actual alcohol strength, benzoic acid, sorbic acid, phosphoric acid as PO4 (2 samples non-alcoholic soda and 2 samples alcoholic soda (Ready-to-Drink))	May-24	
2010617	carbonated soft drinks - spirits	<b>quinine (CAS No 130-95-0)</b> (1 sample non-alcoholic and 1 sample alcoholic)	May-24	

## alcoholic beverages

18

Art. No.	proficiency testing type <sup>[A]</sup>	requested parameters	period	To view pricing information visit our online Portal:
2010392	coffee	water content, ash, pH-value, acidity, water soluble extract, caffeine, acrylamide	Oct-24	Login or register
2010915	green coffee	loss in mass at 105 °C acc. to ISO 6673	May-24	
2010394	tea	dry matter, ash, water soluble ash, water soluble extract, caffeine, theobromine, theophylline, acid-insoluble ash	Oct-24	
2010139	pyrrolizidine alkaloids in tea	quan. determination of three distinct pyrrolizidine alkaloids, e.g. lycopsamine, echimidine, retrorsine, senecionine, seneciphylline, senkirkine, heliotrine, monocrotaline or lasiocarpine	Oct-24	
2010396	energy drink	pH-value, taurine, caffeine, sucrose (anhydrous), glucose (anhydrous), fructose (anhydrous), total sugar (sum of glucose, fructose, sucrose), total acid (pH 8.1) calculated as tartaric acid, relative density [20/20]	Oct-24	
2010021	vitamin solution	thiamine (vitamin B1), riboflavine (vitamin B2), pyridoxine (vitamin B6), cobalamin (vitamin B12), L-ascorbic acid (vitamin C), α-tocopherol (vitamin E), folic acid (vitamin B11), pantothenic acid (vitamin B5), niacin (vitamin B3)	May-24	
2010398	orange juice 1	total carotenoid + fraction I: carotene + fraction II: cryptoxanthineEster + fraktion III: xanthophyll ester	Aug-24	
2010402	carrot juice	relative density 20 °C / 20 °C, pH-value, titratable acid, sucrose, fructose, glucose, nitrate, β-carotene, α-carotene, total carotene, total sugar (sum of glucose, fructose, sucrose)	Oct-24	
2010600	fruit juice concentrate 1	brix value, ph value, titratable acidity, citric acid, D-isocitric-acid, L-malic acid,	Mar-24	
		ascorbic acid, lactic acid, citric acid - isocitric acid ration, hesperidin	Mar-25	
2010602	fruit juice concentrate 2	brix value, titratable acidity, glucose, fructose, sucrose, total sugar (sum of glucose, fructose, sucrose), sugar free extract, glucose-fructose ratio, % sucrose of sugar	Jun-24	
2010610	fruit juice concentrate 3	brix value, ph value, titratable acidity, ash, potassium, calcium, magnesium, total phosphorus, sodium, nitrate, copper, iron	Nov-24	

### non-alcoholic beverages

For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (<u>www.DRRR.de</u>). You can also use the registration forms on page 38 of this catalogue.

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Art. No.	proficiency testing type <sup>[A]</sup>	requested parameters	period	To view pricing information visit our online Portal:	
2010055	grape juice	sulfur dioxide (SO <sub>2</sub> )	Jun-24	Login or register	
2010127	currant juice	lead, cadmium, arsenic, copper, zinc, iron, tin, mercury, aluminium	Aug-24		
2010154	tomato juice	ergosterol	Nov-24		
2010357	trace elements in mineral water	uranium, vanadium, boron	Aug-24		
2010359	sugar substitutes in food	isomalt, lactite, maltitol, mannitol, sorbitol, xylitol	Aug-24		
2011019	orange juice 2	limonin	Aug-24		
2011020	apple juice	patulin	Jun-24		
2011161	Furan in coffee	CAS 110-00-9 Furan	Oct-24		

### non-alcoholic beverages

[A] = For accredited and non-accredited status please see Online portal (ODIN)

Art. No.	proficiency testing type <sup>[A]</sup>	requested parameters	period	To view pricing information visit our online Portal:
2010056	egg products	total lipids, dry matter, protein, pH-value, cholesterol, α-linolenic acid methyl ester, eicosapentaenoic acid methyl ester, docosahexaenoic acid methyl ester, salt content (sodium chloride)	Apr-24	Login or register
2010413	egg pasta	dry matter, fat, raw protein, ash, chloride, cholesterol, total sterine, calculation of the egg content, fibre	Aug-24	
2010/15	movemeine	total acid, water, fat, phosphatid-P205, cholesterol, egg yolk content, sorbic acid,	Mar-24	
2010415	mayonnaise	benzoic acid, salt content (sodium chloride)	Mar-25	
2010129	residues in liquid egg	fat, dioxins, dioxin-like PCBs	May-24	
2010706	antibiotics in liquid egg	quant. determination of one antibiotic each from the substance groups nitrofurans, sufonamides, tetracycline, chloramphenicol	May-24	
2010155	egg powder	total lipids, alpha-amylase activity, ash, pH value, dry matter, salt content, lactic acid, D-3-hydroxybutyric acid	Nov-24	
2010504	Hormons in liquid egg	At least one androgen, at least one estrogen and at least one progestin quantitatively	May-24	
2011120	Nicotine in liquid egg	CAS 54-11-5 Nikotin, CAS 486-56-6 Cotinin	May-24	
2011128	perfluorinated compounds in liquid egg	CAS 1763-23-1 (perfluorooctane sulfonic acid), CAS 335-67-1 (perfluorooctanoic acid), CAS 375-95-1 (perfluorononanoic acid), CAS 355-46-4 (perfluorohexane sulfonic acid)	Aug-24	

## egg products

21

## declaration nutritional values

Art. No.	proficiency testing type <sup>[A]</sup>	requested parameters	period	
2010451		energy, protein, carbohydrate, sugar, fat, saturated fatty acids, fibre, sodium	Sep-24	

[A] = For accredited and non-accredited status please see Online portal (ODIN)

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Art. No.	proficiency testing type <sup>[A]</sup>	requested parameters	period	To view pricing information visit our online Portal:
2010019	boiled sausage 1	fat, water content, ash, protein, collagen, sodium chloride, nitrate, nitrite,	Feb-24	Login or register
		diphosphorus pentoxide (P2O5), calcium, aw-value, starch	Feb-25	
2010204	boiled sausage 2	non-protein nitrogen (NPN), collagen degradation products, L-glutamin acid, citric acid, sodium acetate, L-lactat, sodium nitrate, sodium nitrite, ascorbic acid, pH value	Sep-24	
2010214	raw sausage 1	aw-value, pH-value, D- & L-lactic acid, sodium, nitrate, nitrite, sorbic acid, monounsaturated fatty acids, saturated fatty acids, fat	Jun-24	
2010419	raw sausage 2	fat, water content, protein, ash, sodium chloride, hydroxyproline, diphosphorus pentoxide (P2O5), sodium, starch, solubilised milk protein	Jun-24	
2010169	Detection of soy protein in meat and meat products	soy protein quantitative and qualitative	Jun-24	
2010945	Allergens in meat products	Various allergens quantitative: egg, peanut, nuts, celery, mustard	Jul-24	
2011056	cooked sausage	Fat, protein, water content, ash, sodium chloride, pH value, aw value, starch, hydroxyproline, nitrate, nitrite, diphosphorus pentoxide, L-glutamic acid	Nov-24	

## meat products

22

## fish and seafood

Art. No.	proficiency testing type <sup>[A]</sup>	requested parameters	period
2010421	fish paste 1	water content, fat, raw protein, ash, sodium chloride, total arsenic, , total inorganic arseniciodine, pH value	Aug-24
2010423	fish paste 2	fat, sorbic acid, benzoic acid, saccharin, cyclamate, citric acid	Aug-24
2010506	Nitrosamines in fish	At least 3 nitrosamines quantitatively, e.g. N-nitrosodimethylamine (NDMA), N- nitrososarcosine (NSAR), N- nitrosohydroxyproline (NHPRO)	Aug-24
2011116	Pesticides in fish, seafood	This is a multi-residue proficiency testing. For the proficiency testing schemes on pesticides/ pesticide residues, a pre-selection of pesticides has been made according to relevance: viewable in the list of analytes published by the DRRR in Annex 1. From this list, a selection of pesticides will be available for identification and quantification in the proficiency testing.	Nov-24
2011125	perfluorinated compounds in fish	CAS 1763-23-1 (perfluorooctane sulfonic acid), CAS 335-67-1 (perfluorooctanoic acid), CAS 375-95-1 (perfluorononanoic acid), CAS 355-46-4 (perfluorohexane sulfonic acid)	Apr-24

Art. No.	proficiency testing type <sup>[A]</sup>	requested parameters	period	To view pricing information visit our online Portal:
2010069	pastries	fat, protein, dry matter, ash, milk fat, starch, sucrose, propionic acid	Nov-24	Login or register
2010427	flour	moisture content, raw protein, ash, starch, wet gluten, falling number	Sep-24	
2010429	gluten	Gluten (prolamin contamination) in flour, e.g. oat flour and corn flour	Nov-24	
2010431	butter biscuit	ash, dry matter, raw protein, fat, semimicro butyric acid number, free butyric acid, butyric acid methyl ester, milk fat, starch, cholesterol, sucrose, fibre	May-24	
2011167	Mycotoxins in corn	Aflatoxin B1, Aflatoxin B2, Aflatoxin G1, Aflatoxin G2, Ochratoxin A, DON, Fumonisin B1, Zearalenon (at least 4 parameters quantitative)	Nov-24	

## cereal products

[A] = For accredited and non-accredited status please see Online portal (ODIN)

For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (<u>www.DRRR.de</u>). You can also use the registration forms on page 38 of this catalogue.

Art. No.	proficiency testing type <sup>[A]</sup>	requested parameters	period	To view pricing information visit our online Portal:
2010718	rice	Total Arsenic, Total inorganic arsen	May-24	Login or register
2010361	sedimentation index - Zeleny test (ISO 5529)	sedimentation index (ml) - (acc. To Zeleny)	Sep-24	
2010363	alveograph properties of dough - ISO 27971	determination of alveograph properties of dough	Sep-24	
2010367	rheological properties using farinograph - ISO 5530-1	determination of water absorption and rheological properties using a farinograph	Sep-24	
2010369	rheology using an extensograph - ISO 5530-2	determination of rheological properties using an extensograph	Sep-24	
2010409	rheological properties using a valorigraph - ISO 5530-3	determination of water absorption and rheological properties using a valorigraph	Sep-24	
2010937	Tropane alkaloids in flour	At least 3 different tropane alkaloids quantitatively, e.g. atropine, scopolamine, hyoscyamine.	May-24	
2010939	Ergot alkaloids in flour	At least 3 different ergot alkaloids quantitatively, e.g., ergotamine, ergometrine, ergosine, ergocristine, ergocryptine, and ergocornine.	May-24	
2010949	amylose in rice	amylose quantitatively	Aug-24	
2011098	Acrylamide in cereal products	acrylamide	Jul-24	
2010955	Antioxidants in food	E 320 butylated hydroxyanisole (BHA), E 321 butylated hydroxytoluene (BHT), E 324 ethoxyquin	Sep-24	
2011114	Pesticides in cereals	This is a multi-residue proficiency testing. For the proficiency testing schemes on pesticides/ pesticide residues, a pre- selection of pesticides has been made according to relevance: viewable in the list of analytes published by the DRRR in Annex 1. From this list, a selection of pesticides will be available for identification and quantification in the proficiency testing.	Nov-24	

## cereal products

24

[A] = For accredited and non-accredited status please see Online portal (ODIN)

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Art. No.	proficiency testing type <sup>[A]</sup>	requested parameters	period	To view pricing information visit our online Portal:
2010435	jar food	fat, protein, ash, moisture, vitamin C	Aug-24	Login or register
2010441	baby porridge powder 3	vitamin B1, vitamin B2, vitamin B6, vitamin B12, vitamin A, vitamin C, vitamin E, folic acid, pantothenic acid, biotin	Apr-24	
2010447	milk powder IMF part 1	fat, protein, ash, moisture, vitamin A (retinol), vitamin C	Aug-24	
2010449	milk powder IMF part 2	sodium, potassium, calcium, magnesium, phosphorus, iron, copper, zinc, manganese	Aug-24	
2010261	milk powder IMF allergens	gliadin, soy, casein, lactose, β-lacto- globuline	Oct-24	
2010957	Bisphenol A in infant food	bisphenol A	Oct-24	
2011096	residues in infant formula	Chlorate, perchlorate, phosphonic acid	Aug-24	
2011126	perfluorinated compounds in baby food	CAS 1763-23-1 (perfluorooctane sulfonic acid), CAS 335-67-1 (perfluorooctanoic acid), CAS 375-95-1 (perfluorononanoic acid), CAS 355-46-4 (perfluorohexane sulfonic acid)	May-24	

## infant formula

25

Art. No.	proficiency testing type <sup>[A]</sup>	requested parameters	period	To view pricing information visit our online Portal:
2010453	protein powder	protein, riboflavine (vitamin B2), pyridoxine (vitamin B6), ascorbic acid (vitamin C)	Jun-24	Login or register
2010197	delicatessen salad	benzoic acid, sorbic acid, PHB-ester	Mar-24	
2010137	delicatessen salad		Mar-25	
2010025	chocolate	fat, water content, protein, lactose, milk	Feb-24	
2010020		fat, theobromine, sucrose, caffeine	Feb-25	
2010457	edible fat 1	distribution of fatty acids	Oct-24	
2010710	edible fat 2	iodine, acid value, peroxide, saponification, tocopherole, free fatty acids, p-anisidine value, refraction index, water content, total sterols	Oct-24	
2040450		dry matter, total acid, sodium chloride, allyl	Jan-24	
2010459	mustard	mustard oil, SO2 (sulfur dioxide), fat	Jan-25	
2010157	PAHs in animal and vegetable fats and oils	CAS 91-20-3 (naphthalene), CAS 120-12-7 (anthracene), CAS 56-55-3 (benzo(a)anthracene), CAS 218-01-9 (chrysene), CAS 205-99-2 (benzo(b)fluoranthene), CAS 207-08-9 (benzo(k)fluoranthene), CAS 205-82-3 (benzo(j)fluoranthene), CAS 192-97-2 (benzo(e)pyrene), CAS 50-70-3 (benzo(a)pyrene), CAS 53-70-3 (dibenz(ah)anthracene) (at least 5 of the parameters quantitative)	Oct-24	
2010247	aflatoxins in chocolate	aflatoxin B1, B2, G1, G2, total aflatoxin content	Sep-24	
2010249	pesticides in chocolate	This is a multi-residue proficiency testing. For the proficiency testing schemes on pesticides/ pesticide residues, a pre- selection of pesticides has been made according to relevance: viewable in the list of analytes published by the DRRR in Annex 1. From this list, a selection of pesticides will be available for identification and quantification in the proficiency testing.	Oct-24	
2010327	sugar free candies	sucrose, glucose, fructose, water content (total sugar content < 0.5%, reference method for sugar: enzymatics), total sugar (sum of glucose, fructose, sucrose)	Jul-24	
2010337	metals in cocoa and chocolate	lead, cadmium, arsenic, copper, zinc, iron, aluminium, nickel	Oct-24	
2010339	acrylamide in cocoa and chocolate	acrylamide	Oct-24	

#### other food matrices

Art. No.	proficiency testing type <sup>[A]</sup>	requested parameters	period	To view pricing information visit our online Portal:
2010347	pyrrolizidine alkaloids in spices	quan. determination of three distinct pyrrolizidine alkaloids, e.g. lycopsamine, echimidine, retrorsine, senecionine, seneciphylline, senkirkine, heliotrine, monocrotaline or lasiocarpine	Oct-24	Login or register
2010349	nicotine replacement products	Nicotine in nicotine pouches	Aug-24	
2010498	Metals in tobacco	cadmium, lead, iron, aluminum, copper, zinc, mercury, nickel and arsenic (min. 5 of the metals contained)	Aug-24	
2010500	MCPD and glycidol in edible oil	3-Monochlorpropandiol (3-MCPD), 2- Monochlorpropandiol (2-MCPD), Glycidol	Nov-24	
2010941	Cannabinoids in hemp seeds	CAS 13956-29-1 Cannabidiol (CBD), total Delta-9-THC	Jun-24	
2010953	nutritional components in a complete meal	Moisture, Ash, Fat, Nitrogen, Sodium, Chloride	Sep-24	
2010959	phthalates in edible oil	CAS 28553-12-0 (DINP), CAS 117-81-7 (DEHP), CAS 117-84-0 (DNOP), CAS 26761- 40-0 (DIDP), CAS 85-68-7 (BBP), CAS 84-74- 2 (DBP), CAS 84-69-5 (DIBP), CAS 131-18-0 (DPP), CAS 71888-89-6 (DIHP), CAS 117-82- 8 (DMEP)	Oct-24	
2011021	rheology of edible fat (DIN 53019)	viscosity	Jun-24	
2011087	Peanut butter	Dry matter, ash, fat, protein, pH value, sodium chloride, total sugars, total dietary fibre	Apr-24	
2011090	Aflatoxins in nuts	B1, B2, G1, G2, total aflatoxin content	Oct-24	
2011091	Aflatoxins in spices	B1, B2, G1, G2, total aflatoxin content	Aug-24	
2011092	Alternaria toxins in vegetable oils	Alternariol (AOH), Alternariol monomethyl ether (AME), Tenuazonic acid (TEA), Tentoxin (TEN)	Nov-24	

## other food matrices

27

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Art. No.	proficiency testing type <sup>[A]</sup>	requested parameters	period	To view pricing information visit our online Portal:
2011095	Ethylene oxide in spices	Ethylene oxid	Nov-24	Login or register
2011094	Pesticides in oilseeds	This is a multi-residue proficiency testing. For the proficiency testing schemes on pesticides/ pesticide residues, a pre- selection of pesticides has been made according to relevance: viewable in the list of analytes published by the DRRR in Annex 1. From this list, a selection of pesticides will be available for identification and quantification in the proficiency testing.	Oct-24	
2011118	Pesticides in hemp seed	This is a multi-residue proficiency testing. For the proficiency testing schemes on pesticides/ pesticide residues, a pre- selection of pesticides has been made according to relevance: viewable in the list of analytes published by the DRRR in Annex 1. From this list, a selection of pesticides will be available for identification and quantification in the proficiency testing.	Oct-24	
2011160	PAHs in herbs and spices	CAS 91-20-3 (naphthalene), CAS 120-12-7 (anthracene), CAS 56-55-3 (benzo(a)anthracene), CAS 218-01-9 (chrysene), CAS 205-99-2 (benzo(b)fluoranthene), CAS 207-08-9 (benzo(k)fluoranthene), CAS 205-82-3 (benzo(i)fluoranthene), CAS 192-97-2 (benzo(e)pyrene), CAS 50-70-3 (benzo(a)pyrene), CAS 53-70-3 (dibenz(ah)anthracene) (at least 5 of the parameters quantitative)	May-24	

## other food matrices

Proficiency Testing for mineral oil in foodstuff can be found in the catalogue "consumer goods and packaging" or the online catalogue.

[A] = For accredited and non-accredited status please see Online portal (ODIN)

Art. No.	proficiency testing type <sup>[A]</sup>	requested parameters	period	To view pricing information visit our online Portal:
2010165	plant drink (milk alternative)	fat, dry matter, protein, freezing point, density (2 kinds of plant drink on the basis of e.g. soy or almond)	May-24	Login or register
2010502	Quinolizidine alkaloids in Lupins Drink	At least 3 different quinolizidine alkaloids quantitatively, e.g. lupanine, lupinin, spartein	May-24	
2010712	vegetarian sausage substitute	fat, protein, dry matter, sodium chloride, ash, fibre, pH-value	May-24	
2010161	Determination of natural thickeners	agar, carrageenan, guar, gum arabic, locust bean gum, sodium alginate and pectin	Aug-24	
2010343	vegetarian bread spread	fat, protein, dry matter, salt, ashes, pH- value	Oct-24	
2010345	metals in vegetarian bread spread	cadmium, nickel	Oct-24	
2011164	Vegan food identification (ISO 23662:2021)	Food will be tested qualitatively using molecular biology methods to determine whether they are vegan.	Oct-24	
2011165	Identification of plant based food	Food will be tested qualitatively using molecular biology methods to determine whether they are soy-, bean-, or lentil- based.	Oct-24	

## vegan and vegetarian substitutes

[A] = For accredited and non-accredited status please see Online portal (ODIN)

Art. No.	proficiency testing type <sup>[A]</sup>	requested parameters	period	To view pricing information visit our online Portal:
2010455	honey 1	diastase activity, proline, HMF, conductivity, pH-value, water, glycerin, ethanol	Aug-24	Login or register
2010708	honey 2	glucose, fructose, maltose, saccharose, turanose, saccharase number, free acids, ash	Aug-24	
2011002	antibiotics in honey	quan. determination of one antibiotic of each of the substance groups sulfonamides and tetracyclines as well as of chloramphenicol and streptomycin.	Jun-24	
2011004	pesticide residues in honey	This is a multi-residue proficiency testing. For the proficiency testing schemes on pesticides/ pesticide residues, a pre- selection of pesticides has been made according to relevance: viewable in the list of analytes published by the DRRR in Annex 1. From this list, a selection of pesticides will be available for identification and quantification in the proficiency testing.	Jul-24	
2011006	pyrrolizidine alkaloids in honey	quan. determination of three distinct pyrrolizidine alkaloids, e.g. lycopsamine, echimidine, retrorsine, senecionine, seneciphylline, senkirkine, heliotrine, monocrotaline or lasiocarpine	Jun-24	
2011008	veterinary drug residues in honey	quant. determination of veterinary drugs especially of acaricides or their components. The following veterinary drugs can be queried (at least 5): Cymiazole, chlorfenvinphos, bromopropylate, permethrin (cis-/trans-), coumaphos, flumethrin, carbaryl, propargite, amitraz, thymol.	Jul-24	
2011010	GMOs in honey	qualitative detection of different screening elements, e.g. P-35S, T-NOS and P-FMV	Jul-24	
2011012	relative frequency of pollen in honey	relative frequency of pollen	Jun-24	
2011014	falsification honey	Identification of rice syrup and sugar beet syrup in honey, qualitative proficiency test	Jul-24	
2011016	residues in beeswax	quan. determination of three distinct substances out of the fields varroa veterinary drugs and plant protection agents	Aug-24	
2011018	falsification beeswax	paraffin wax content, stearin content	Aug-24	

## honey and beeswax

30

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31

Art. No.	proficiency testing type <sup>[A]</sup>	requested parameters	period	To view pricing information visit our online Portal:
2010351	metals in animal feed	calcium, copper, iron, phosphorus, potassium, manganese, magnesium, sodium, zinc	Aug-24	Login or register
2010353	ingredients animal feed (round 1)	moisture content, crude protein, crude fat, crude fibre, sugar, lactose, starch, crude ash, ash (insoluble in hydrochloric acid), calcium carbonate	Aug-24	
2011166	ingredients animal feed (round 2)	crude protein, urea, volatile nitrogenous bases, amino acids, tryptophan, total phosphorus, sodium chloride, vitamin A, vitamin E	Aug-24	
2010355	animal components in animal feed	qualitative identification of animal components	Aug-24	
2010093	animal food mycotoving	OTA, DON, aflatoxin	Mar-24	
2010093	animal feed mycotoxins	OTA, DON, anatoxin	Mar-25	
2010315	Fluoride content in animal feed	fluoride content	Nov-24	
2010947	phytase in feed	phytase quantitatively	Jul-24	
2010947	Perfluorinated compounds in feed	CAS 1763-23-1 (perfluorooctanesulfonic acid), CAS 335-67-1 (perfluorooctanoic acid), CAS 375-95-1 (perfluorononanoic acid), CAS 355-46-4 (perfluorohexanesulfonic acid)	Sep-24	

## drinking water

Art. No.	proficiency testing type <sup>[A]</sup>	requested parameters	period	To view pricing information visit our online Portal:
2010373	pharmaceutical residues in drinking water	Diclofenac, Ibuprofen	Aug-24	Login or register
2010395	Microplastic in water	particle number	Aug-24	
2011123	perfluorinated compounds in mineral water	CAS 1763-23-1 (perfluorooctane sulfonic acid), CAS 335-67-1 (perfluorooctanoic acid), CAS 375-95-1 (perfluorononanoic acid), CAS 355-46-4 (perfluorohexane sulfonic acid)	Sep-24	

### environment

Art. No.	proficiency testing type <sup>[A]</sup>	requested parameters	period
2011127	perfluorinated compounds in soil	CAS 1763-23-1 (perfluorooctane sulfonic acid), CAS 335-67-1 (perfluorooctanoic acid), CAS 375-95-1 (perfluorononanoic acid), CAS 355-46-4 (perfluorohexane sulfonic acid)	Jun-24
2011136	$CO_2$ evolution test (ISO 9439, OECD 301B)	CO <sub>2</sub>	Mar-24
2011137	Zahn-Wellens, EMPA test (ISO 9888, OECD 302B)	Dissolved Organic Carbon	Mar-24
	Plastic materials - aerobic biodegradability (ISO 14855- 2, ASTM D5338-15)	Biodegradation in % by CO <sub>2</sub>	Apr-24
2011139	Plastic materials - aerobic biodegradability (ASTM D5511)	Biodegradation in % by $CO_2$ and $CH_4$ production	Apr-24

[A] = For accredited and non-accredited status please see Online portal (ODIN)

## 33 molecular biological-immunological proficiency testing

For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (<u>www.DRRR.de</u>). You can also use the registration forms on page 38 of this catalogue.

Art. No.	proficiency testing type <sup>[A]</sup>	requested parameters	period	To view pricing information visit our online Portal:
2010263	beef, pork, horse	qualitative detection of the animal species beef, pork and horse (participation with protein and DNA based methods possible) and quantitative detection of the relative amount of animal species (only DNA-based methods possible)	Dec-24	<u>Login or register</u>
2010588	porcine and beef DNA in gelatine	Qualitative detection of low amounts of porcine (sus scrofa) and beef (bos taurus) DNA in highly processed food matrix (gelatin).	Dec-24	
2010313	porcine DNA in Candy	Qualitative detection of low amounts of porcine (sus scrofa) DNA in candy (gummy candy)	Dec-24	
2010335	detection of the animal species in milk	Animal species qualitative of cow, sheep and goat. If requested, the animal species camel, buffalo and horse could also be queried.	Dec-24	
2011108	Qualitative detection of insects in flour	Qualitative detection of tenebrio molitor (mealworm / flour beetle) in the ppm range on at least 3 samples.	Nov-24	

## determination of animal species

# 34 molecular biological-immunological proficiency testing

For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (<u>www.DRRR.de</u>). You can also use the registration forms on page 38 of this catalogue.

#### **GMO**

Art. No.	proficiency testing type <sup>[A]</sup>	requested parameters	period	To view pricing information visit our online Portal:
2010720	soy (GMO)	qualitative detection of the screening elements P-35S, T-NOS and P-FMV as well as the quantitative detection of the relative amount of transgene soy (construct or event specific methods possible)	Nov-24	<u>Login or register</u>
2011010	GMOs in honey	qualitative detection of different screening elements, e.g. P-35S, T-NOS and P-FMV	Jul-24	
2010141	corn (GMO)	qualitative detection of the screening elements P-35S, T-NOS and pat as well as the quantitative detection of the relative amount of transgene corn (construct or event specific methods possible)	Nov-24	
2010143	rice (GMO)	qualitative detection of the screening elements P-35S, T-NOS and bar as well as the quantitative detection of the relative amount of transgene rice (construct or event specific methods possible)	Nov-24	
2010145	canola (GMO)	qualitative detection of the screening elements T-NOS, CTP2-CP4EPSPS and P- FMV as well as the quantitative detection of the relative amount of transgene canola (construct or event specific methods possible)	Dec-24	
2010147	cotton (GMO)	qualitative detection of the screening elements P-35S, T-NOS and pat as well as the quantitative detection of the relative amount of transgene cotton (construct or event specific methods possible)	Dec-24	
2010331	potato (GMO)	qualitative detection of different screening elements, e.g. P-35S, T-NOS and P-FMV as well as the quantitative detection of the relative amount of transgene potato (construct or event specific methods possible)	Nov-24	
2010333	sugar beet (GMO)	qualitative detection of different screening elements, e.g. P-35S, T-NOS and P-FMV as well as the quantitative detection of the relative amount of transgene sugar beet (construct or event specific methods possible)	Nov-24	
2011163	Animal feed (GMO)	qualitative detection of various screening elements as well as qualitative detection of transgenic plants (construct or event- specific methods possible)	Nov-24	

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35

Art. No.	proficiency testing type <sup>[A]</sup>	requested parameters	period	To view pricing information visit our online Portal:
3010000	water (ranking test, basic tastes) 1	organoleptic analysis - basic taste (2 basic tastes)	Feb-24	Login or register
			Feb-25	
3010028	water (ranking test, basic tastes) 2	organoleptic analysis - basic taste (2 basic tastes)	Jun-24	
3010030	water (ranking test, basic tastes) 3	organoleptic analysis - basic taste (2 basic tastes)	Nov-24	
3010034	beer (ranking test, Diacetyl)	organoleptic analysis - Diacetyl	Oct-24	
3010037	yoghurt (ranking test, basic tastes)	organoleptic analysis - basic taste (2 basic tastes)	Nov-24	
3010003	yoghurt (ranking test, flavours) 1	organoleptic analysis - flavours (2 flavours)	Feb-24	
			Feb-25	
3010041	yoghurt (ranking test, flavours) 2	organoleptic analysis - flavours (2 flavours)	Nov-24	

possible basic tastes	sweet, sour, bitter, salty	
DOSSIDIE TIAVOURS (EXCEDI TIAVOUR TAIDI)	strawberry, cherry, vanilla, peach, lemon	

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#### triangle test

36

Art. No.	proficiency testing type <sup>[A]</sup>	requested parameters	period	To view pricing information visit our online Portal:
3010006	water (triangle test, basic taste)	organoleptic analysis - triangle test basic taste	Jul-24	Login or register
3010032	fruit juice (triangle test, flavour taint)	organoleptic analysis - triangle test flavour taint	Sep-24	
3010020	beer (triangle test, Diacetyl)	organoleptic analysis - triangle test Diacetyl	Oct-24	
3010039	yoghurt (triangle test, basic taste)	organoleptic analysis - triangle test basic taste	Nov-24	
3010043	vershurt (triangle test fleveur)	organoleptic analysis - triangle test	Feb-24	
3010043	yoghurt (triangle test, flavour)	flavour	Feb-25	
3010004	tuna (triangle test)	organoleptic analysis - triangle test	Jun-24	
3010054	texture test (triangle test)	organoleptic analysis - triangle test	Apr-24	
3010007	colour check (triangle test)	organoleptic analysis - triangle test	Apr-24	
3010010	apple juice (triangle test, basic taste)	organoleptic analysis - triangle test basic taste	Jun-24	
3010013	milk (triangle test, flavour taint)	organoleptic analysis - triangle test flavour	Apr-24	
3010016	coffee infusion (triangle test, flavour taint)	organoleptic analysis - triangle test flavour	Jul-24	
3010029	plant drink (triangle test, flavour taint)	organoleptic testing - triangle test to an off- flavor on a plant drink (milk alternative)	May-24	

possible basic tastes	sweet, sour, bitter, salty
possible flavours (except flavour faint)	strawberry, cherry, vanilla, peach, lemon

[A] = For accredited and non-accredited status please see Online portal (ODIN)

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#### threshold value

37

Art. No.	proficiency testing type <sup>[A]</sup>	requested parameters	period	To view pricing information visit our online Portal:
For the foll	owing proficiency testing sc	Login or register		
3010008	drinking water (TON, TFN)	water quality according to EN 1622:2006 examination for panels - minimum number		
3010008		of participants: 3 assessors! determination of the threshold odour number (TON) determination of the threshold flavour number (TFN)	Mar-25	
3010055	fruit juice (threshold value examination, flavour taint)	organoleptic analysis - threshold value examination of flavour taint	Dec-24	

#### descriptive testing

Art. No.	proficiency testing type <sup>[A]</sup>	requested parameters	period
3010049	chocolate (simple descriptive	examination for panels simple descriptive testing (up to 5	Mar-24
0010010	testing)	assessors)	Mar-25
3010051	chocolate (profile testing)	examination for panels profile testing (up to 5 assessors)	Jun-24
3010018	sausage (simple descriptive testing)	examination for panels simple descriptive testing (up to 5 assessors)	Nov-24
3010025	fruit juice (simple descriptive testing)	examination for panels simple descriptive testing (up to 5 assessors)	Sep-24
3010031	plant drink (simple descriptive testing)	examination for panels simple descriptive testing (up to 5 assessors)	Jul-24

[A] = For accredited and non-accredited status please see Online portal (ODIN)

## registration form proficiency testing

Deutsches Referenzbüro für Ringversuche und Referenzmaterialien

Article No. / proficiency testing type	period	result release and report online (ODIN)	result release by e- mail / fax; report by e- mail	additional sample sets / assessor (organoleptic)

Up to nine additional result sheets can be returned for chemical-physical, microbiological and physical-mechanical proficiency testing rounds are free of charge. As a participant, you benefit from our international recognized proficiency testing schemes. By submitting up to ten result sheets you are now enabled to run international comparisions to check different methods and different lab technicians with one proficiency testing round. Your benefit: Participating in DRRRproficiency testing services save costs for your quality assurance! If you need additional sample sets, you have the opportunity to order it according to our latest product catalogue.

Please note, that the free of charge service is only valid for returning result sheets by ODIN. If you send us your results by mail, fax or postal delivery, the additional result sheet will be charged according the latest product catalogue as a sample set equivalent.

In very rare individual cases an accredited proficiency testing round will not be carried out within the scope of accreditation due to technical or organizational reasons. In these rare cases the DRRR will inform the participants before the start of the proficiency testing round, thus before the sample shipment. An immediately free cancellation for the participants is possible until the date of the sample shipment.

Your registration is an one-time order. It is only valid for one year. Cancelation fees apply when cancelling a registration. If you want to have a permanent-registration please tick the box on the right side.

DDDD austamar number

conditions.

38

Please send registration to: fax-no. +49 (0)8 31/960 878-99 e-mail: <u>info@DRRR.de</u> online via <u>www.odin.drrr.de</u>

- O this registration is permanent-registration and valid until my cancelation
- O An offer with the total costs is needed
- O A Purchase order from the purchasing department will follow

DRRR-customer number	
company	
company (additional line)	
contact person	
street	
post-code /city	
country (if not Germany)	
fon	
fax	
e-mail	
e-mail for invoices	 
VAT-ID-No. (if available)	 
With your signature you agree with our general terms and	

date

signature

#### Importance

Reference material is a substance or item with one or more defined (known) characteristics and sufficient homogeneity.

#### Benefit of using certified reference materials

These materials are suitable for the calibration of equipment, for the quality assurance of testing methods or to analyse derivate reference materials. DRRR-Reference materials are essential for the chemical, physical, microbiological and sensory analytics as well as for the quality assurance. Standards for the accreditation of testing and calibration laboratories demand the using of reference materials.

The use of reference materials (RM) and certified reference materials (CRM) is an important procedure to avoid mistakes in the lab routine.

#### **Characteristics**

- the reference value is developed by the total number of results of the participants of proficiency testing (consensus value)
- DRRR-Reference materials do always refer to
- a DRRR-Proficiency testing
- reliable reference values according to
- advanced statistical evaluation
- · independent service without influence of
- societies organisations and federations

The opportunity to collaborate with the best laboratories for the different requirements assures the high quality of our materials.

#### Identification

The reference materials listed on the following pages have specific article numbers to identify the materials. To supply our customers with consistently high quality the DRRR-reference materials will be replaced regularly by corresponding materials during the year. Currently available reference materials and its corresponding reference values will be sent on request. We reserve our right to send you always the latest materials. Description reference material

Profit with our high quality standards for your lab work

Reference materials meet all requirements of the ISO Guides 31 and 35, but it does not exist any accreditation for reference materials.

Availability and order request of reference material

# STANDARON 
#### The brand STANDARON®

40

The DRRR has concluded a far reaching cooperation with the IfL. The main focus of this cooperation is the development and commercialisation of long term calibration materials for the food economy. The developed materials were merchandised with the name STANDARON®.

#### Reference system for raw milk analysis

With the cooperation arises a range of services that offers not only regional but also national both in North and South Germany a competent reference system for raw milk analysis. Therewith it also offers more advantages and reliabilities for our international customers. The cooperation could already prove its competence at the new introduced STANDARON® raw cream materials. The quality advantage of the materials has been clearly confirmed at linearity, precision and stability. Besides standard materials is a focus of the cooperation to produce tailor-made, customer-oriented materials which are specially designed to cover individual production processes.

STANDARON® long-term calibration materials (LKM) for raw milk, raw cream and pasteurised milk will be used for the calibration of IR instruments.

The reference values of STANDARON® materials were defined by selected "reference laboratories". These laboratories are proved the requirements according to DIN EN ISO/IEC 17025:2017.

#### Questions about the application

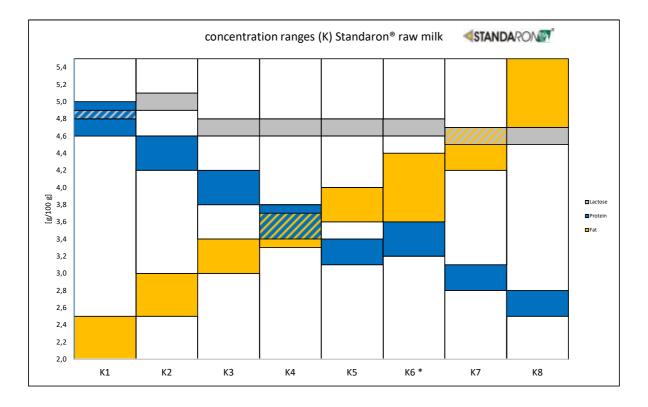
If you need any advice to assure your calibration do not hesitate to contact us.

Application of the materials

#### Please use the order from on page 68.

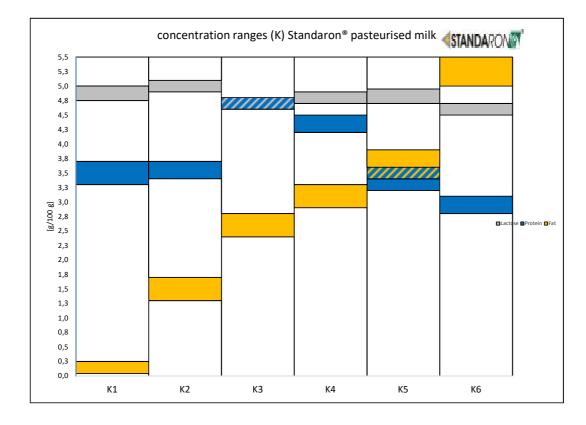
LKM-type	Art. No.	fat	protein	lactose	dry matter	freezing point	urea			
		Röse- Gottlieb	Kjeldahl	enzym.	102 °C	cryoscopy	enzym.	packaging unit	prices	
		g/100g	g/100g	g/100g	g/100g	m°C	mg/kg			
LKM RO K1	1141021	2,0 - 2,5 %	4,6 - 5,0 %	4,8 - 4,9 %						
LKM RO K2	1141022	2,5 - 3,0 %	4,2 - 4,6 %	4,9 - 5,1 %						
LKM RO K3	1141023	3,0 - 3,4 %	3,8 - 4,2 %	4,6 - 4,8 %						
LKM RO K4	1141024	3,3 - 3,7 %	3,4 - 3,8 %	4,6 - 4,8 %		eference mate				
LKM RO K5	1141025	3,6 - 4,0 %	3,1 - 3,4 %	4,6 - 4,8 %		ding reference vilable on requ		50 ml	20€	
LKM RO K6 *	1141026	3,6 - 4,4 %	3,2 - 3,6 %	4,6 - 4,8 %				- 4,8 %		
LKM RO K7	1141027	4,2 - 4,7 %	2,8 - 3,1 %	4,5 - 4,7 %						
LKM RO K8	1141028	4,7 - 5,5 %	2,5 - 2,8 %	4,5 - 4,7 %						

\* unmodified raw milk, higher variances possible



Please use the order from on page 68.

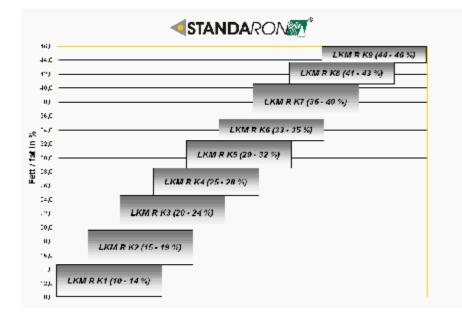
LKM-type	Art. No.	fat	protein	lactose mono- hydrate	dry matter	freezing point		
		Röse- Gottlieb	Kjeldahl	enzym.	102 °C cryos-copy		packaging unit	prices
		g/100g	g/100g	g/100g	g/100g	°C		
LKM PAM K1	1141001	0,04 - 0,25 %	3,3 - 3,7 %	4,75 - 5,0 %				
LKM PAM K2	1141002	1,3 - 1,7 %	3,4 - 3,7 %	4,9 - 5,1 %	available reference material and the corresponding reference values are available on request			18€
LKM PAM K3	1141003	2,4 - 2,8 %	4,6 - 4,8 %	4,6 - 4,8 %			ence 50 ml	
LKM PAM K4	1141004	2,9 - 3,3 %	4,2 - 4,5 %	4,7 - 4,9 %				
LKM PAM K5	1141005	3,4 - 3,9 %	3,2 - 3,6 %	4,7 - 4,95 %			1,95 %	
LKM PAM K6	1141006	5,0 - 5,5 %	2,8 - 3,1 %	4,5 - 4,7 %				



# 42 STANDARON® - overview raw cream

Please use the order from on page 68.

LKM-type	Art. No.	fat	protein	dry matter		
		Röse- Gottlieb	Kjeldahl 102 °C		packaging unit	prices
		g/100g	g/100g	g/100g		
LKM R K1	1141011	10 - 14 %				
LKM R K2	1141012	15 - 19 %				
LKM R K3	1141013	20 - 24 %	available reference			
LKM R K4	1141014	25 - 28 %			20€	
LKM R K5	1141015	29 - 32 %	correspondi	ng reference	50 ml	
LKM R K6	1141016	33 - 35 %		available on uest		
LKM R K7	1141017	36 - 40 %				
LKM R K8	1141018	41 - 43 %				24€
LKM R K9	1141019	44 - 46 %				25€



#### Please use the order from on page 68.

LKM-type	Art. No.	fat	protein	lactose mono- hydrate	dry matter	ash		
		Röse- Gottlieb	Kjeldahl	enzym.	102 °C	cryos-copy	packaging unit	prices
		g/100g	g/100g	g/100g	g/100g	°C		
sweet whey	1141031						50 ml	
sour whey	1141032	available refe	vailable reference material and the corresponding reference values are available on request					22€
whey concentrate	1141033							

Your contact persons at DRRR GmbH, Kempten: Team Reference Materials	
Dr. Ulrich Leist	+49 (0)8 31/960 878-0
Your contact persons at LUFA NORD-WEST, Oldenburg Sarah Pietsch	+49 (0)4 41/97 352-152

Please use the order from on page 68.

#### milk and cream

Art. No.	material description	parameter *	additional information	packaging unit	prices
1101001	UHT milk	fat, dry matter, protein, lactose, freezing point, density, lactulose, water activity	UHT skimmed milk 1,5 % fat 3,5 % fat	2x50 ml	32€
1101002	UHT milk (lactose free)	lactose (< 0.1 %)	1,5 % fat 3,5 % fat	11	32€
1101003	raw milk	fat, dry matter, protein, lactose, freezing point, urea, pH value, casein	-	50 ml	20€
1101004	goat's milk	fat, protein, freezing point	-	on request	32€
1101005	raw cream	fat, protein, dry matter	-	50 ml	22€
1101007	evaporeated milk	fat, dry matter, protein, ash, phosphorus	4 % fat 8 % fat	170 g	32€
1101027	butter milk	phosphatides, fat, dry matter, ash, pH value, acidity acc. Soxhlet-Henkel, density in heat serum	-	500 ml	32€
1121064	dairy drinks	fat, dry matter, protein, sucrose, glucose, lactose, fructose, total sugar (sum of glucose, fructose, sucrose)	-	50 ml	32€
1101025	residues in milk	chloramphenicol, aldrin, dieldrin, PCB 101, trichlormethane, aflatoxin M1, streptomycine, tetracycline	-	230 ml	67€
1101029	Inhibitors in milk	quant. determination of one antibiotic each from the substance groups sulfonamides, penicillins, cephalosporins, quinolones.	-	on request	on request

\* in individual cases it can happen that there is no reference value available for a listed parameter

Please use the order from on page 68.

#### cheese

Art. No.	material description	parameter *	additional information	packaging unit	prices
1111001	processed cheese	fat, dry matter, protein, lactose, sodium chloride, pH value, nitrate, citric acid, phosphorus, ash, total lactic acid	11 - 20 % fat 21 - 30 % fat	100 g	44 €
1111012	processed cheese	natamycin, aflatoxin M1	-	50 g	116€
1111002	fresh cheese	fat, dry matter, protein, total lactic acid	6 - 10 % fat 21 - 25 % fat	175 g	34 €
1111003	curd	fat, dry matter, protein, total lactic acid	-	250 g	30€
1111004	semi hard cheese	fat, dry matter, protein, sodium chloride	20 - 25 % fat 26 - 29 % fat 30 - 35 % fat	100 g	41€
1111005	hard cheese	fat, dry matter, protein, sodium chloride	20 - 25 % fat 26 - 29 % fat 30 - 35 % fat	100 g	40€
1111006	soft cheese	fat, dry matter, protein, sodium chloride, pH value	20 - 25 % fat	125 g	30€

\* in individual cases it can happen that there is no reference value available for a listed parameter

Please use the order from on page 68.

#### other milk products

Art. No.	material description	parameter *	additional information	packaging unit	prices
1111007	butter type 1	soldis non-fat, water content, pH value, cholesterol, fat	sweet cream butter mild soured butter salted butter	250 g	37€
1111008	butter type 2	fatty acid composition C4-C20	-	250 g	68€
1111009	yoghurt	fat, dry matter, protein, total lactic acid, pH-value	-	500 g	34 €
1101008	whey	dry matter, protein, NPN, lactose, ash, phosphorus, potassium, calcium	sweet whey sour whey	50 ml	28€
1111010	Pudding - Dessert	fat, dry matter, protein, lactose, pH- value	-	250 g	37€
1111011	AMF-anhydrous milk fat	alkalinity, free fatty acids, water content, peroxide value, carotene, butyric acid methyl ester	-	200 ml	32€
1121001	ice-cream	quantitative parameters: fat, milkfat, colouring agent E 124 (cochenille red A), vanillin, vanillic acid, p- hydroxybenzaldehyde, p- hydroxybenzoic acid, lactose qualitative parameters: colouring agent E 100 (curcumin), foreign fat, colouring agent ß-carotene (E 160)	-	100 g	37€
1101006	sour cream - crème fraiche	fat, dry matter, protein, pH value	-	200 g	32€

\* in individual cases it can happen that there is no reference value available for a listed parameter

Please use the order from on page 68.

#### milk powder

Art. No.	material description	parameter *	additional information	packaging unit	prices
1121002	milk powder type 1	fat, moisture content, protein, lactose, ash, free fat, nitrate, titratable acidity, pH value	skimmed milk powder whole milk powder	app. 80 - 110 g	40€
1121063	milk powder type 2	bulk density after 100 tappings	-	> 110 g	40€
1121004	milk powder (lactose reduced)	lactose, moisture	-	50 g	40€
1121005	milk powder nitrate - nitrite	nitrate, ntirite	-	20 - 30 g	40€
1121007	whey powder	fat, dry matter, protein, lactose, ash, pH value, titratable acidity	sweet whey powder sour whey powder	app. 80 - 110 g	40€

\* in individual cases it can happen that there is no reference value available for a listed parameter

Please use the order from on page 68.

# fruit and vegetables products

Art. No.	material description	parameter *	additional information	packaging unit	prices
1121009	sugar-mix	glucose, fructose, sucrose, maltose, starch, aspartame, acesulfame K, sorbate, saccharin, total sugar (sum of glucose, fructose, sucrose)	several materials available	100 g	67€
1121010	fruit preparation	brix value, pH value, total acid, citric acid, L-malic acid, ash, phosphorous, potassium	several materials available	100 g	67€
1121011	sauerkraut	ascorbic acid, titratable acid, total acid, volatile acid, lactic acid, pH value, sodium chloride, non volatile acid	-	on request	67€
1121012	dried fruits	fat, water content, SO2 (sulphur dioxide)	-	100 g	67€
1121013	dry potato product	water content, fat, saturated fatty acids, protein, ash, carbohydrates, starch, sucrose, fibre, sodium	-	250 g	67€
1121014	tomat ketchup type 1	pH-value, titratable acid, citric acid, sodium chloride, glucose, fructose, soluble dry matter, dry matter, sorbic acid, benzoic acid, sucrose (anhydrous), total sugar (sum of glucose, fructose, sucrose)	-	200 g	67€
1121099	tomat ketchup type 2	lycopene	-	200 g	67€
1121065	hot sauce	Capsaicin	-	50 g	67€
1121091	legumes	fat, water content, fibre, nitrogen content, crude protein content	-	on request	67€
1121135	Solvent residues in food	At least 3 different solvents quantitatively, e.g. benzene, toluene, xylene	-	on request	on request

\* in individual cases it can happen that there is no reference value available for a listed parameter

Please use the order from on page 68.

#### alcoholic beverages

Art. No.	material description	parameter *	additional information	packaging unit	prices
1121024	fruit spirit	relative density 20 °C / 20 °C, alcohol, ethyl carbamate, ferment accompanying substance	-	on request	67€
1121026	beer	apparent extract, extract, alcohol content in weight per cent and volume per cent, wort, density, bitterness units, pH value	-	200 ml	67€
1121098	carbonated soft drinks	carbonation (CO2 content), actual alcohol strength, benzoic acid, sorbic acid, phosphoric acid as PO4	different varieties available (non- alcoholic and alcoholic)	300 - 375 ml	67€
1121128	carbonated soft drinks - spirits	quinine (CAS No 130-95-0)	different varieties available (non- alcoholic and alcoholic)	on request	67€

\* in individual cases it can happen that there is no reference value available for a listed parameter

Please use the order from on page 68.

### non-alcoholic beverages

Art. No.	material description	parameter *	additional information	packaging unit	prices
1121015	coffee	water, ash, pH-value, acidity, water soluble extract, caffeine, acrylamide	-	150 g	67€
1121129	green coffee	loss in mass at 105 °C acc. to ISO 6673	-	on request	55€
1121016	tea	dry matter, ash, water soluble ash, water soluble exract, caffeine, theobromine, theophylline, acid- insoluble ash	-	120 g	67€
1121083	pyrrolizidine alkaloids in tea	quant. determination of three distinct pyrrolizidine alkaloids, e.g. lycopsamine, echimidine, retrorsine, senecionine, seneciphylline, senkirkine, heliotrine, monocrotaline or lasiocarpine	-	2 x 1 g	135€
1121017	energiedrink	pH-value, taurine, caffeine, sucrose (anhydrous), glucose (anhydrous), fructose (anhydrous), total sugar (sum of glucose, fructose, sucrose), total acid (pH 8.1) calculated as tartaric acid, relative density [20/20]	-	500 ml	67€
1121018	vitamin solution	thiamine (vitamin B1), riboflavine (vitamin B2), pyridoxine (vitamin B6), cobalamin (vitamin B12), L-ascorbic acid (vitamin C), $\alpha$ -tocopherol (vitamin E), folic acid (vitamin B11), pantothenic acid (vitamin B5), niacin (vitamin B3)	-	4 g	67€
1121019	orange juice type 1	total carotenoid, fraction I: carotenoid, fraction II: cryptoxanthinester, fraction III: xanthophyllester	-	100 g	67€
1121021	carrot juice	relative density 20 °C / 20 °C, pH- value, titratable acid, sucrose, fructose, glucose, nitrate, ß-carotene, α-carotene, total carotene, total sugar (sum of glucose, fructose, sucrose)	-	300 ml	67€
1121058	fruit juice concentrate type 1	brix value, ph value, titratable acidity, citric acid, D-isocitric-acid, L-malic acid, ascorbic acid, lactic acid, citric acid - isocitric acid ration, hesperidin	-	100 g	67€
1121059	fruit juice concentrate type 2	brix value, titratable acidity, glucose, fructose, sucrose, total sugar (sum of glucose, fructose, sucrose), sugar free extract, glucose-fructose ration, % sucrose of sugar	-	100 g	67€
1121062	fruit juice concentrate type 3	brix value, ph value, titratable acidity, ash, potassium, calcium, magnesium, total phosphorus, sodium, nitrate, copper, iron	-	100 g	67€
1121053	grape juice	sulphur dioxide (SO2 )	several concentrations of SO2	80 ml	67€
1121054	currant juice	lead, cadmium, arsenic, copper, zinc, iron, tin, mercury, aluminium	-	100 ml	67€

\* in individual cases it can happen that there is no reference value available for a listed parameter

Please use the order from on page 68.

#### non-alcoholic beverages

Art. No.	material description	parameter *	additional information	packaging unit	prices
1121055	tomato juice	ergosterol	-	50 ml	67€
1121092	plant drink (milk alternative)	fat, dry matter, protein, freezing point, density	-	on request	67€
1121114	trace elements in mineral water	uranium, vanadium, boron	-	on request	67€
1121115	sugar substitutes in food	isomalt, lactite, maltitol, mannitol, sorbitol, xylitol	-	on request	67€
1121125	Quinolizidine alkaloids in Lupins Drink	At least 3 different quinolizidine alkaloids quantitatively, e.g. lupanine, lupinin, spartein	-	on request	100€

\* in individual cases it can happen that there is no reference value available for a listed parameter

Please use the order from on page 68.

#### egg products

Art. No.	material description	parameter *	additional information	packaging unit	prices
1121028	egg products	total lipids, dry matter, protein, pH- value, cholesterol, α-linolenic acid methyl ester, eicosapentaenoic acid methyl ester, docosahexaenoic acid methyl ester, salt content (sodium chloride)	-	100 g	67€
1121029	egg pasta	dry matter, fat, raw protein, ash, chloride, cholesterol, total sterine, calculation of the egg content, fibre	-	300 g	67€
1121030	mayonnaise	total acid, dry matter, fat, phosphatid- P205, cholesterol, egg yolk content, sorbic acid, benzoic acid, salt content (sodium chloride)	-	150 g	67€
1121027	residues in liquid egg	fat, dioxins, dioxin-like PCBs	-	100 g	100€
1121066	antibiotics in liquid egg	quant. determination of one antibiotic each from the substance groups nitrofurans, sufonamides, tetracycline, chloramphenicol	-	100 g	100 €
1121088	egg powder	total lipids, alpha-amylase activity, ash, pH value, dry matter, salt content, lactic acid, D-3- hydroxybutyric acid	-	100 g	67€
1121126	Hormons in liquid egg	At least one androgen, at least one estrogen and at least one progestin quantitatively	-	on request	100€

# declaration nutritional values

Art. No.	material description	parameter *	additional information	packaging unit	prices
1121044		energy, protein, carbohydrate, sugar, fat, saturated fatty acids, fibre, sodium	-	125 g	67€

\* in individual cases it can happen that there is no reference value available for a listed parameter

Please use the order from on page 68.

#### meat products

Art. No.	material description	parameter *	additional information	packaging unit	prices
1121031	boiled sausage type 1	fat, water content, ash, protein, collagen, sodium chloride, nitrate, diphosphorus pentoxide (P2O5), calcium, nitrite, aw-value, starch	-	200 g	67€
1121032	boiled sausage type 2	non-protein nitrogen (NPN), collagen degradation products, L-glutamic acid, citric acid, sodium acetate, L- lactat, sodium nitrate, sodium nitrite, ascorbic acid, pH value	-	250 g	67€
1121033	raw sausage type 1	aw-value, pH-value, D- & L-lactic acid, sodium, nitrate, nitrite, sorbic acid, monounsaturated fatty acids, saturated fatty acids, fat	-	200 g	67€
1121060	raw sausage type 2	fat, water content, protein, ash, sodium chloride, hydroxyproline, diphosphorus pentoxide (P2O5), sodium, starch, solubilised milk protein	-	200 g	67€
1121069	vegetarian sausage substitute	fat, protein, dry matter, sodium chloride, ash, fibre, pH-value	-	150 g	67€
1121093	Detection of soy protein in meat and meat products	soy protein quantitative and qualitative	-	on request	112€
1121136	Allergens in meat products	Various allergens quantitative: egg, peanut, nuts, celery, mustard	-	on request	on request

#### fish and seafood

Art. No.	material description	parameter *	additional information	packaging unit	prices
1121034	fish paste type 1	water, fat, raw protein, ash, sodium chloride, arsenic, iodine	-	100 g	67€
1121035	fish paste type 2	fat, sorbic acid, benzoic acid, saccharin, cyclamate, citric acid	-	100 g	67€
1121127	Nitrosamines in fish	At least 3 nitrosamines quantitatively, e.g. N-nitrosodimethylamine (NDMA), N-nitrososarcosine (NSAR), N- nitrosohydroxyproline (NHPRO)	-	on request	100€

\* in individual cases it can happen that there is no reference value available for a listed parameter

Please use the order from on page 68.

#### cereal products

Art. No.	material description	parameter *	additional information	packaging unit	prices
1121037	pastries (baking mix)	fat, dry matter, protein, ash, milk fat, starch, sucrose	-	200 g	67€
1121061	pastries (bread)	propionic acid	-	50 g	67€
1121038	flour	moisture content, raw protein, ash, starch, wet gluten content, falling number	-	300 g	67€
1121039	gluten	Gluten (prolamin contamination) in flour, e.g. oat flour and corn flour	-	on request	67€
1121040	butter biscuit	ash, dry matter, raw protein, fat, semimicro butyric acid number, free butyric acid, butyric acid methyl ester, milk fat, starch, cholesterol, sucrose, fibre	-	250 g	67€

\* in individual cases it can happen that there is no reference value available for a listed parameter

Please use the order from on page 68.

#### cereal products

Art. No.	material description	parameter *	additional information	packaging unit	prices
1121072	rice	arsenic	-	on request	on request
1121116	determination of the sedimentation index - Zeleny test (ISO 5529)	sedimentation index (ml) - (acc. To Zeleny)	-	on request	on request
1121117	determination of alveograph properties of dough - ISO 27971	determination of alveograph properties of dough	-	on request	on request
1121118	determination of water absorption and rheological properties using a farinograph - ISO 5530-1	determination of water absorption and rheological properties using a farinograph	-	on request	on request
1121119	determination of rheological properties using an extensograph - ISO 5530-2	determination of rheological properties using an extensograph	-	on request	on request
1121120	determination of water absorption and rheological properties using a valorigraph - ISO 5530-3	determination of water absorption and rheological properties using a valorigraph	-	on request	on request
1121130	Tropane alkaloids in flour	At least 3 different tropane alkaloids quantitatively, e.g. atropine, scopolamine, hyoscyamine.	-	on request	on request
1121131	Ergot alkaloids in flour	At least 3 different ergot alkaloids quantitatively, e.g., ergotamine, ergometrine, ergosine, ergocristine, ergocryptine, and ergocornine.	-	on request	on request
1121138	amylose in rice	amylose quantitatively	-	on request	on request
1121139	Antioxidants in food	E 320 butylated hydroxyanisole (BHA), E 321 butylated hydroxytoluene (BHT), E 324 ethoxyquin	-	on request	on request

\* in individual cases it can happen that there is no reference value available for a listed parameter

Please use the order from on page 68.

### infant formula

Art. No.	material description	parameter *	additional information	packaging unit	prices
1101009	jar food	fat, protein, ash, moisture, vitamin C	-	on request	100€
1121043	baby porridge powder type 3	vitamin B1, vitamin B2, vitamin B6, vitamin B12, vitamin A, vitamin C, vitamin E, folic acid, pantothenic acid, biotin	-	200 g	67€
1101010	milk powder IMF type 1	fat, protein, ash, moisture, vitamin A (retinol), vitamin C	-	100 g	125€
1101011	milk powder IMF type 2	sodium, potassium, calcium, magnesium, phosphorus, iron, copper, zinc, manganese	-	on request	125€
1101026	milk powder IMF allergens	gliadin, soy, casein, lactose, ß-lact- globuline	-	on request	100€
1121140	Bisphenol A in infant food	bisphenol A	-	on request	on request

\* in individual cases it can happen that there is no reference value available for a listed parameter

Please use the order from on page 68.

**58** 

#### other food matrices

Art. No.	material description	parameter *	additional information	packaging unit	prices
1121045	protein powder	protein, riboflavine (vitamin B2), pyridoxine (vitamin B6), ascorbic acid (vitamin C	-	100 g	67€
1121046	delicatessen salad	benzoic acid, sorbic acid, PHB-ester	-	50 g	67€
1121048	chocolate	fat, water content, protein, lactose, milk fat, theobromine, sucrose, caffeine	chocolate bitter-sweet whole milk chocolate	100 g	67€
1121049	edible fat type 1	distribution of fatty	-	200 ml	67€
1121068	edible fat type 2	iodine, acid value, peroxide, saponification, tocopherole, free fatty acids, p-anisidine value, refraction index, water content, total sterols	-	200 ml	67€
1121050	mustard	dry matter, total acid, sodium chloride, allyl mustard oil, SO2 (sulphur dioxide), fat	-	300 g	67€
1121089	PAHs in animal and vegetable fats and oils	naphthalene, anthracene, benzo(a)anthracene, chrysene, benzo(b)fluoranthen, benzo(k)fluoranthen, benzo(j)fluoranthen, benzo(e)pyren, benzo(a)pyren, dibenz(ah)anthracene (at least 5 of the parameters quantitative)	A PAH concentration in the samples of approximately 0,1-5 μg/kg per PAH is to be expected.	50 g	135€
1121090	Determination of natural thickeners	agar, carrageenan, guar, gum arabic, locust bean gum, sodium alginate and pectin		on request	67€
1121094	aflatoxins in chocolate	aflatoxin B1, B2, G1, G2, total aflatoxin content		on request	135€
1121095	pesticides in chocolate	CAS 121-75-5 (Malathion), CAS 2921- 88-2 (Chlorpyrifos), CAS 57837-19-1 (Metalaxyl), CAS 1071-83-6 (Glyphosat)		on request	135€
1121100	sugar free candies	sucrose, glucose, fructose, water content, total sugar (sum of glucose, fructose, sucrose)	total sugar content < 0.5%, reference method for sugar: enzymatics	on request	67€
1121104	metals in cocoa and chocolate	cadmium, lead, iron, aluminum, copper, zinc, mercury, nickel and arsenic (min. 5 of the metals contained)	-	on request	100€
1121105	acrylamide in cocoa and chocolate	acrylamide	-	on request	100€

\* in individual cases it can happen that there is no reference value available for a listed parameter

Please use the order from on page 68.

#### other food matrices

Art. No.	material description	parameter *	additional information	packaging unit	prices
1121106	cannabis oil	CAS 13956-29-1 Cannabidiol (CBD)	-	on request	100€
1121107	vegetarian bread spread	fat, protein, dry matter, salt, ashes, pH-value	-	on request	67€
1121108	metals in hummus	cadmium, nickel	-	on request	67€
1121109	pyrrolizidine alkaloids in spices	quan. determination of three distinct pyrrolizidine alkaloids, e.g. lycopsamine, echimidine, retrorsine, senecionine, seneciphylline, senkirkine, heliotrine, monocrotaline or lasiocarpine	-	on request	100€
1121110	nicotine replacement products	Nicotine in nicotine pouches	-	on request	100€
1121123	Metals in tobacco	cadmium, lead, iron, aluminum, copper, zinc, mercury, nickel and arsenic (min. 5 of the metals contained)	-	on request	100€
1121124	MCPD and glycidol in edible oil	3-Monochlorpropandiol (3-MCPD), 2- Monochlorpropandiol (2-MCPD), Glycidol	-	on request	100€
1121132	Cannabinoids in hemp seeds	CAS 13956-29-1 Cannabidiol (CBD), total Delta-9-THC	-	on request	on request
1121134	nutritional components in a complete meal	Moisture, Ash, Fat, Nitrogen, Sodium, Chloride	-	on request	on request
1121133	phthalates in edible oil	CAS 28553-12-0 (DINP), CAS 117-81-7 (DEHP), CAS 117-84-0 (DNOP), CAS 26761-40-0 (DIDP), CAS 85-68-7 (BBP), CAS 84-74-2 (DBP), CAS 84-69- 5 (DIBP), CAS 131-18-0 (DPP), CAS 71888-89-6 (DIHP), CAS 117-82-8 (DMEP)	-	on request	on request

\* in individual cases it can happen that there is no reference value available for a listed parameter

Please use the order from on page 68.

#### honey and beeswax

Art. No.	material description	parameter *	additional information	packaging unit	prices
1121047	honey type 1	diastase activity, proline, HMF, conductivity, pH-value, water, glycerin, ethanol	-	250 g	67€
1121067	honey type 2	glucose, fructose, maltose, saccharose, turanose, saccharase number, free acids, ash	-	250 g	67€
1121074	antibiotics in honey	quan. determination of one antibiotic of each of the substance groups sulfonamides and tetracyclines as well as of chloramphenicol and streptomycin	-	125 ml	100€
1121075	pesticide residues in honey	CAS 121-75-5 (Malathion), CAS 2921- 88-2 (Chlorpyrifos), CAS 57837-19-1 (Metalaxyl), CAS 1071-83-6 (Glyphosat)	-	on request	on request
1121076	pyrrolizidine alkaloids in honey	quan. determination of three distinct pyrrolizidine alkaloids, e.g. lycopsamine, echimidine, retrorsine, senecionine, seneciphylline, senkirkine, heliotrine, monocrotaline or lasiocarpine	-	100 g	100€
1121077	veterinary drug residues in honey	quant. determination of veterinary drugs especially of acaricides or their components. The following veterinary drugs can be queried (at least 5): Cymiazole, chlorfenvinphos, bromopropylate, permethrin (cis- /trans-), coumaphos, flumethrin, carbaryl, propargite, amitraz, thymol.	-	on request	on request
1121078	GMOs in honey	qualitative detection of different screening elements, e.g. P-35S, T- NOS and P-FMV	-	100 g	100€
1121079	relative frequency of pollen in honey	relative frequency of pollen	-	on request	on request
1121080	falsification honey	Identification of rice syrup and sugar beet syrup in honey, qualitative proficiency test	-	on request	on request
1121081	residues in beeswax	quan. determination of three distinct substances out of the fields varroa veterinary drugs and plant protection agents	-	on request	on request
1121082	falsification beeswax	paraffin wax content, stearin content	-	app. 100 g	100€

\* in individual cases it can happen that there is no reference value available for a listed parameter

Please use the order from on page 68.

#### animal feed

Art. No.	material description	parameter *	additional information	packaging unit	prices
1121111	metals in animal feed	calcium, copper, iron, phosphorus, potassium, manganese, magnesium, sodium, zinc	-	on request	77€
1121112	ingredients animal feed	moisture content, crude protein content, crude oil, crude ash, crude fiber, sugar, lactose, starch	-	on request	77€
1121113	animal components in animal feed	qualitative identification of animal components	-	on request	67€
1121052	animal feed mycotoxins	OTA, DON, aflatoxin	-	on request	100€
1121097	Fluoride content in animal feed	fluoride content	-	on request	67€
1121137	phytase in feed	phytase quantitatively	-	on request	on request

\* in individual cases it can happen that there is no reference value available for a listed parameter

# molecular biological-immunological reference material

Please use the order from on page 68.

#### drinking water

64

Art. No.	material description	parameter *	additional information	packaging unit	prices
1121121	pharmaceutical residues in drinking water	Diclofenac, Ibuprofen	-	on request	67€
1121122	Microplastic in water	particle number	-	on request	100€

\* in individual cases it can happen that there is no reference value available for a listed parameter

\* 5555

# molecular biological-immunological reference material

Please use the order from on page 68.

# determination of animal species

Art. No.	material description	parameter *	additional information	packaging unit	prices
1121056	beef, pork, horse	qualitative detection of the animal species beef, pork and horse (participation with protein and DNA based methods possible) and quantitative detection of the relative amount of animal species (only DNA- based methods possible)	-	50 g	112€
1121057	porcine and beef DNA in gelatine	Qualitative detection of low amounts of porcine (sus scrofa) and beef (bos taurus) DNA in highly processed food matrix (gelatin) in this proficiency testing also the DNA of sheep, goat and fish can be requested	3 different samples (1 x negative, 2 x positive)	3 x 1 g	112€
1121057	porcine and beef DNA in gelatine	Qualitative detection of low amounts of porcine (sus scrofa) and beef (bos taurus) DNA in highly processed food matrix (gelatin) in this proficiency testing also the DNA of sheep, goat and fish can be requested	1 material (positive or negative)	1 g	100 €
1121096	porcine DNA in Candy	Qualitative detection of low amounts of porcine (sus scrofa) DNA in candy (gummy candy)	3 different samples	2 g	112€
1121103	detection of the animal species in milk	animal species qualitative	The animal species can be detected in 3 different milks by isoelectric focusing, ELISA or PCR.	on request	100€

\* in individual cases it can happen that there is no reference value available for a listed parameter

# molecular biological-immunological reference material

Please use the order from on page 68.

#### GMO

64

Art. No.	material description	parameter *	additional information	packaging unit	prices
1121073	soy (GMO)	qualitative detection of the screening elements P-35S, T-NOS and P-FMV as well as the quantitative detection of the relative amount of transgene soy (construct or event specific methods possible)	-	10 g	135€
1121078	GMOs in honey	qualitative detection of different screening elements, e.g. P-35S, T- NOS and P-FMV	-	100 g	100€
1121084	corn (GMO)	qualitative detection of the screening elements P-35S, T-NOS and pat as well as the quantitative detection of the relative amount of transgene corn (construct or event specific methods possible)	-	on request	135€
1121085	rice (GMO)	qualitative detection of the screening elements P-35S, T-NOS and bar as well as the quantitative detection of the relative amount of transgene rice (construct or event specific methods possible)	-	on request	135€
1121086	canola (GMO)	qualitative detection of the screening elements T-NOS, CTP2-CP4EPSPS and P-FMV as well as the quantitative detection of the relative amount of transgene canola (construct or event specific methods possible)	-	on request	135€
1121087	cotton (GMO)	qualitative detection of the screening elements P-35S, T-NOS and pat as well as the quantitative detection of the relative amount of transgene cotton (construct or event specific methods possible)	-	on request	135€
1121101	potato (GMO)	qualitative detection of different screening elements, e.g. P-35S, T- NOS and P-FMV as well as the quantitative detection of the relative amount of transgene potato (construct or event specific methods possible)	-	on request	135€
1121102	sugar beet (GMO)	qualitative detection of different screening elements, e.g. P-35S, T- NOS and P-FMV as well as the quantitative detection of the relative amount of transgene sugar beet (construct or event specific methods possible)	-	on request	135€

\* in individual cases it can happen that there is no reference value available for a listed parameter

# organoleptic reference material

Please use the order from on page 68.

#### ranking test

Art. No.	material description	parameter *	additional information	packaging unit	prices
3301001	water with basic taste (ranking test)	4 samples with different concentrations (sufficient for 5 assessors)	bitter, sweet, sour or salty	sample sets 4 x 500 ml	135€
3301002	beer (ranking test, Diacetyl)	4 samples with different concentrations (sufficient for 5 assessors)	Diacetyl	sample sets 4 x 500 ml	135€
3301003	yoghurt with basic taste (ranking test)	4 samples with different concentrations (sufficient for 5 assessors)	sweet sour salty	sample sets 4 x 500 ml	135€
3301004	yoghurt with flavours (ranking test)	4 samples with different concentrations (sufficient for 5 assessors)	strawberry, cherry, vanilla, peach, lemon	sample sets 4 x 500 ml	135€

#### triangle test

Art. No.	material description	parameter *	additional information	packaging unit	prices
3311001	water with basic taste (triangle test)	3 coded samples sets - triads (sufficient for 5 assessors)	bitter, sweet, sour or salty	3 coded sample sets - triads	214€
3311002	fruit juice (triangle test, flavour taint)	3 coded samples sets - triads (sufficient for 3 assessors)	flavour taint	3 coded sample sets - triads	214€
3311003	beer (triangle test, Diacetyl)	3 coded samples sets - triads (sufficient for 5 assessors)	Diacetyl	3 coded sample sets - triads	214€
3311004	yoghurt with basic taste (triangle testt)	3 coded samples sets - triads (sufficient for 5 assessors)	sweet sour salty	3 coded sample sets - triads	214€
3311005	yoghurt with flavours (triangle test)	3 coded samples sets - triads (sufficient for 5 assessors)	strawberry, cherry, vanilla, peach, lemon	3 coded sample sets - triads	214€
3311007	tuna (triangle test)	3 coded samples sets - triads (sufficient for 5 assessors)	-	sample set 9 x 200g	214€
3311008	texture test (triangle test)	3 coded samples sets - triads (sufficient for 5 assessors)	-	on request	214€
3311009	colour check (triangle test)	3 coded samples sets - triads (sufficient for 5 assessors)	-	on request	214€
3311011	apple juice (triangle test, basic taste)	3 coded samples sets - triads (sufficient for 5 assessors)	-	on request	214€
3311012	milk (triangle test, flavour taint)	3 coded samples sets - triads (sufficient for 5 assessors)	-	on request	214€
3311013	coffee infusion (triangle test, flavour taint)	3 coded samples sets - triads (sufficient for 5 assessors)	-	on request	214€

\* in individual cases it can happen that there is no reference value available for a listed parameter

# 66 organoleptic reference material

Please use the order from on page 68.

#### threshold value

Art. No.	material description	parameter *	additional information	packaging unit	prices
3321001	drinking water TON acc. to EN 1622	sample set (raw material + instruction) for the threshold odour number determination	characteristic off- flavour in drinking water	sample set for a panel (with 3 assessors)	161€
3321002	drinking water TFN acc. to EN 1622	sample set (raw material + instruction) for the threshold flavour number determination	characteristic off- flavour in drinking water	sample set for a panel (with 3 assessors)	161 €
3321007	fruit juice (threshold value examination, flavour taint)	sample set (raw material + instruction) for the threshold value determination	off-flavour	sample set for one assessor	97€

\* in individual cases it can happen that there is no reference value available for a listed parameter

67 other products / services

#### Please use the order from on page 68.

material description	description	additional information	packaging unit	price
ADR- security certified DRRR- freezing packaging system RM-ADR VP 1	Our certified packagings fulfill the requirements of ADR especially of the dan-gerous goods directive GGVSE and GGVSee. These systems are also convenient for the shipping of pathogenic bacteria of risk group 2.	guaranteed temperature assurance: 24 hours	VP 1 app. 310 x 250 x 190 mm	16€
ADR- security certified DRRR- freezing packaging system RM-ADR VP 2	Our certified packagings fulfill the requirements of ADR especially of the dan-gerous goods directive GGVSE and GGVSee. These systems are also convenient for the shipping of pathogenic bacteria of risk group 2.	guaranteed temperature assurance: 48 hours	VP 2 app. 350 x 350 x 300 mm	26€

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68	order form reference material	Referenzbüro für Ringversuche und Referenzmaterialien
quantity	material type / material description / article no.	notes (e.g. time period for regular delivery)

Please notice that we process orders only at a minimum order value of  $50 \in$ .

Please send order form to: fax-no. +49 (0)8 31/960 878-99 or e-mail: info@DRRR.de

- O An offer with the total costs is needed
- O A Purchase order from the purchasing department will follow

DRRR-customer number	
company	
company (additional line)	
contact person	
street	
post-code /city	
country (if not Germany)	
fon	
fax	
e-mail	
e-mail for invoices	
VAT-ID-No. (if available)	
With your signature you agree	

with our general terms and conditions.

date

signature

quality management / quality assurance

We have collected wide experience in building up and operating process orientated quality management systems. Our experience is based on an intensive quality management qualification (DQG –EOQ quality manager). Feedback of our costumers gives us a wide overview about the various requirements that companies have to pass at audit situations.

As a qualified and examined auditor (DGQ-EOQ auditor quality, TGA) we are capable to estimate a company from different perspectives if quality management system is fit for audit and following we can show potentials for improvement.

We offer assistance for the following questions:

- building up process orientated quality management
- building up of a secure testing agent system
- assessment of quality systems in preparation for audits
- advice in operating effective quality management systems

With our expertise in interpreting ISO 9001 over IFS to DIN 17025 we serve companies of food economy and laboratories.

On the basis of our international activities we also have experience in building up and implementation of quality management systems in developing countries. We place our services at your disposal for international questions.

#### **IR-Seminar**

The IR-seminar explains how to analyze different kind of food by IR spectroscopy. Furthermore specific peculiarties for the IR calibartion of selected food will be discussed. The specific peculiarties of the calibration will be explained intensify. How to calibrate? When you have to update the calibration? What is the cause of measurement problems?

#### Sensory seminar

The importance of the sensory in the food stuff industry will be explained and clarified in practice. The current state of new tastes is presented. Furthermore the participant will be enabling to apply the sensory testing methods. The use of sensory methods will be explained and on the basis of various sensory materials implemented.

#### **User-Workshop**

Typical questions in the chemical and microbiological analysis of food, especially dairy products are presented and possible solutions will be demonstrated.

Furthermore efficient ways to increase the laboratory quality will be presented. The seminar is accompanied by the practical experience of users.

#### Statistics seminar for beginners

This seminar presents the Binomial-, Poissonand Normal distribution and the application of them. Problem cases and the classis misinterpretation due to a false outlier treatment by the application of the Normal distribution are shown.

#### Statistics seminar for advanced learners

This seminar presents the Shapiro-Wilk-Test, qui<sup>2</sup>-adaptation test, Median and MAD (Median absolute deviation) and their application. Furthermore the participants will be informed about the robust standard deviation after Qmethod and the robust average after Hampel. The seminar will be complemented by theoretical exercises on IR spectroscopy. In the practical excericise calibration data sets will be testes for suitability and critical data sets will be identifed.

The sensory measurement uncertainty of each participant will be determined at a practical example.

A lot of space for the exchanging of knowledge and experience is provided at the User-Workshop. Therefore some experts are available as contact persons.

The seminar is complemented by practical exercises with the notebook.

The seminar is complemented by practical exercises with the notebook.

#### Implementation of DIN EN ISO/IEC 17025 in food laboratories

The participants will learn all items to implement a successful internal audit. Furthermore typical errors of the implementation of the audit will be targeted and avoidance strategies are communicated. The reliable identification of the deviation in audits and their successful processing in the form of measures will be trained.

#### Inhouse-Training

We consider lectures, training and seminars as in important duty. Not primary concerning commercial possibilities but by reason that the knowledge transfer is the most important item in every department of our society.

- Seminar and training (one-day) of handling and implementation of proficiency testing
- Seminar and training (one-day) of operating control charts
- Seminar and training of sensory (customised product sensory)

You will benefit of the extensive experience of the DRRR, because the DRRR go through the audit situation in a perspective of 360 ° as an auditor, as an audited person and as a neutral expert.

For special requirements we also offer customised training programmes.

For questions about contents and conditions do no hesitate to contact us.

#### Terms of payment

Our prices are net prices (plus 19% value added tax). Customers from European countries can provide us with their EU-VAT-Identification number, then they will be exempt from German value added tax. Terms of payment: 8 days net, without deduction Fees for specially required customs documents such as import permits or similar will be invoiced according to time and effort.

Our bank details: Raiffeisenbank in Allgäuer Land / bank code 733 692 64 Account 102350 / IBAN DE 94733692640000102350 BIC code: GENO DEF1DTA Sales tax ID no. DE254613132 tax number 127/124/32207

### Terms of delivery

Shipping costs for reference materials and proficiency tests will be invoiced according to time and effort. All samples and packaging materials are the property of the DRRR. Samples that are used for nondestructive testing and are therefore not subject to destruction in the course of the proficiency test can be reclaimed by the DRRR upon request. The DRRR shall bear the shipping costs for the return transport if the materials are reclaimed.

Proficiency tests or reference materials marked "frozen" are shipped with our ADR safety tested frozen packaging system. A packaging fee is charged for the polystyrene box including cooling accumulators and air bubble film as well as the protective outer packaging. Frozen materials are shipped by express service. With the delivery of reference materials, you will receive a quality certificate with the details of the respective reference values as well as associated uncertainties.

#### Terms of delivery (risk group 1, 2 and 3)

Proficiency tests or reference materials marked with "Risk Group 1" are not subject to any participation restrictions according to § 44 IfSG (Infektionsschutzgesetz).

For proficiency tests or reference materials marked with "risk group 2, or risk group 3<sup>\*\*</sup>", we need a permission from your laboratory according to § 44 IfSG (Infektionsschutzgesetz) or similar. Please enclose a copy of the permission with your registration or order.

Our general terms and conditions (Allgemeine Geschäftsbedingungen) are valid!

The German reference office for proficiency testing and reference materials GmbH (hereinafter referred to as DRRR) for freely agreed services, in particular testing, training and expert activities as well as reference materials.

#### § 1 General terms and conditions

73

The client acknowledges the General Terms and Conditions and price lists valid at the time of placing the order. Deviating terms and conditions of individual clients cannot be accepted.

Collateral agreements, promises and other declarations by the employees of the DRRR are only binding if they are expressly confirmed in writing by the DRRR. This shall also apply to amendments to this clause. If individual regulations within this contract or its components are ineffective, this does not affect the validity of the remaining regulations. The contracting parties shall have a duty, acting in accordance with the principles of good faith, to replace any invalid provision by one which is valid and which produces the same economic outcome as that intended by the invalid provision and providing that such replacement does not result in any change to the content of the contract; the same shall also apply analogously to any matter which requires regulation but for which no provision is made in these Terms and Conditions.

#### § 2 Execution of the order

The orders accepted by the DRRR shall be carried out or expert opinions shall be prepared in accordance with the recognized rules of technology and – unless otherwise agreed in writing – in the manner customary at the DRRR. No responsibility shall be assumed for the correctness of the safety programs or safety regulations on which the tests are based, unless expressly agreed otherwise in writing.

The scope of the DRRR's work shall be specified in writing when the order is placed. If the proper execution of the order results in changes or extensions to the specified scope of the order, such changes or extensions shall be agreed in writing prior to execution. If the Customer can no longer be reasonably expected to adhere to the contract with regard to the changes or extensions, the Customer shall in this case be entitled to withdraw from the contract. However, according to § 649 BGB, the client must pay the agreed remuneration or, in the absence of an agreement, an appropriate remuneration.

The contractual services of the DRRR are deemed to have been rendered upon preparation of the respective final reports or expert reports.

A seminar registration can be cancelled free of charge for up to 6 weeks, after which the customer will be invoiced for the costs of the participants depending on the time and effort involved.

The following cancellation conditions apply to the cancellation of a proficiency testing:

Consolution notification pariod	Permanent registration (D)	
Cancelation notification period:	single (one-time) registration (E)	
up to 2 months before the preficiency testing	no costs (D)	
up to 3 months before the proficiency testing	50,00 € (E)	
2 months before the preficiency testing start	50,00 € (D)	
3 months before the proficiency testing start	half proficiency testing price (E)	
sample shipment – deadline of the results	complete price of the proficiency testing and any further incurred costs (D & E)	

#### § 3 Deadlines

The order deadlines specified by the DRRR shall not be binding unless their binding nature has been expressly agreed in written form.

74

General terms and conditions

### § 4 Warranty and liability

The integrity of the sample material to a defined condition is only guaranteed until the first border crossing in the case of foreign shipments.

Safety note: When sending materials of risk group 2, the DRRR must receive a letter from the recipient stating that the recipient is authorized to handle hazardous materials (e.g. pathogenic germs).

The DRRR's warranty only covers the services expressly commissioned to it pursuant to Section 2. No warranty is thereby assumed for the correctness and functioning of the relevant overall system, measuring instruments or materials to which the examined or tested samples belong; in particular, the DRRR bears no responsibility for packaging, material selection and construction of the examined systems, measuring instruments or assemblies, unless these issues are expressly the subject of the order.

Even in the latter case, the warranty obligation and legal responsibility of the manufacturer are neither limited nor assumed.

The warranty obligation of the DRRR is limited to the rectification of an error or defect or, in the absence of a warranted characteristic, to the achievement of this characteristic within a reasonable period of time. If the rectification or creation of the characteristic fails, i.e. if it becomes impossible or unreasonable for the Customer or is refused or unduly delayed by the DRRR, the Customer shall be entitled to demand a reduction in the remuneration or rescission of the contract, at its discretion.

The DRRR shall not be liable for any work performed by the Customer in the event of incorrect proficiency tests or reference materials.

The DRRR only assumes liability for certain properties, in particular for the fact that the service is suitable for the purposes of the Customer, if a corresponding assurance of the properties in question has been given. Any liability for consequential damages from positive breach of contract due to warranted characteristics is excluded, unless the warranty was intended to protect against such consequential damages. Claims for damages of the client from §§ 463, 635 BGB due to the lack of assured characteristics remain unaffected.

If an error or defect that does not represent the absence of a warranted characteristic is due to a circumstance for which the DRRR is responsible, the DRRR shall only be liable for any damage incurred by the Customer as a result thereof per order up to a maximum amount that corresponds to the value of the order agreed in accordance with Section 2.

The materials may only be used for the corresponding scientific purpose by trained qualified personnel. The DRRR is in no case responsible and liable for used, unused or unusable samples.

The samples are intended for analytical purposes only. The DRRR assumes no liability if the samples are not used for the intended analytical purposes.

All materials are definitely not suitable for human consumption unless they are sensory materials. Oral ingestion of materials not intended for sensory purposes can be harmful to health.

In the case of sensory materials, it is the responsibility of the test persons themselves to check whether they can test the materials with regard to allergies. The ingredients of the sensory materials are declared.

All samples and packaging materials are the property of the DRRR. Samples that are used for non-destructive testing and are therefore not subject to destruction in the course of the interlaboratory comparison can be reclaimed by the DRRR upon request. The DRRR will bear the shipping costs for the return transport, if the materials are reclaimed.

The analytical properties of the material can only be guaranteed if the transport, storage and use conditions specified by the DRRR are observed.

For frozen samples, the DRRR only guarantees that the samples will be treated in accordance with the material properties stated in the data sheet. For frozen samples delivered to countries outside the EU, we can only guarantee the sample properties up to the first customs clearance point at the respective EU border.

#### § 5 Exclusion of further liability and claims

The risk (transport and remuneration risk) shall pass to the Customer as soon as the goods have left the DRRR, regardless of whether the goods are transported by the Customer's own or third-party means of transport. Claims for damages by the client are excluded. This does not apply to intent, gross negligence, breach of essential contractual obligations of the DRRR or the lack of properties guaranteed in writing.

All further claims of the client for direct and indirect damage – for whatever legal reason – in particular claims for damages due to positive breach of contract or from tort and for compensation for damage that did not occur on the object of the order itself are excluded. Irrespective of this, the client is obliged to take out the usual insurance against direct and indirect damage.

General terms and conditions

#### § 6 Remuneration and payment terms

Unless otherwise stated, the prices are in euros and do not include value added tax. This will be invoiced separately at the currently applicable rate in accordance with the applicable tax regulations. The goods remain the property of DRRR until they have been paid for in full by the customer.

The fees according to the DRRR's currently valid List of Services shall apply to the calculation of the services unless a fixed price or another basis of assessment has been expressly agreed in writing. In the absence of a valid specification of services, individual contractual arrangements shall be made in each case.

Advances on costs can be requested. Partial invoices can also be issued in accordance with the services rendered. Partial invoices need not be marked as such. The receipt of an invoice does not mean that the DRRR has fully invoiced the order.

The fees are due for payment immediately after invoicing, at the latest by the date printed on the invoice (8 days net, without deduction). Unless another arrangement has been made. If payment is made at a later date, default interest of 2% above EURIBOR will be charged on the outstanding invoice amount for the period between the due date and receipt of payment.

Objections to the invoices of the DRRR must be notified in writing within a preclusive period of 14 days after receipt of the invoice, stating reasons.

#### § 7 Confidentiality and copyright

The DRRR reserves the copyrights to the expert opinions, test results, calculations, etc. prepared by it. The DRRR and its employees may not unauthorizedly disclose or exploit business and operating relationships that come to their knowledge in the course of their work.

The DRRR may take copies for its files of written documents that have been made available to the DRRR for inspection and that are of importance for the performance of the assignment.

If the proficiency test report and the laboratory code are sent by e-mail, no guarantee can be given that confidentiality will be ensured.

#### § 8 Place of jurisdiction, place of performance, applicable law

The place of jurisdiction for the assertion of claims for both parties to the contract is Kempten, provided that the conditions according to § 38 of the German Code of Civil Procedure are met. This applies in particular to dunning proceedings.

The place of performance for all obligations arising from the contract is Kempten, the contractor's registered office.

The contractual relationship and all legal relationships are subject exclusively to the law of the Federal Republic of Germany applicable between domestic contracting parties, excluding the Uniform Law on the Sale of Goods and the United Nations Convention on Contracts for the International Sale of Goods.

#### § 9 Guarantee of services and goods from cooperation partners

For reference materials sold on behalf of our cooperation partners, the following conditions apply with regard to liability and warranty:

The liability of our cooperation partners, their legal representatives and vicarious agents is limited to cases of intent, gross negligence, absence of a warranted characteristic and breach of an obligation, the non-compliance of which would endanger the purpose of the contract. The liability for proven damages due to grossly negligent conduct is limited to the amount of the contractual remuneration; no liability is assumed for consequential damages. Liability is limited to the use of the reference materials for the purposes described in the respective certificate.

Our cooperation partners guarantee the application of scientific diligence as well as compliance with the recognized rules of technology.

Our cooperation partners are entitled to rectify any defects that occur. If the rectification of defects fails, the client is entitled to demand a reduction of the remuneration or cancellation of the contract at his discretion. Further warranty claims are excluded.

The warranty is limited to the stated expiration date of the reference materials.

This applies to: ieLab, TGZ AQS Baden-Württemberg

### **DRRR proficiency tests for pesticides**

full analyte list



Deutsches Referenzbüro für Ringversuche und Referenzmaterialien

The DRRR proficiceny tests are available for booking here: <u>Online portal (ODIN)</u> (search with keyword: "pesticide") With the DRRR proficiency tests from the pesticide program, you benefit from the following advantages, among others:

- any number of analytes from this list may be present for identification and quantification in the single PT rounds - important requirements for method validation according to SANTE 11312/2021 (1) fulfilled

- all relevant matrix groups (1.-9.) according to SANTE 11312/2021 (1) available

- use of current pesticides according to EU monitoring program

- laboratory evaluations considering the 70-120 recovery interval according to SANTE 11312/2021 (1)

- evaluation with state of the art statistics

- fast reporting after end of result submission

The proficiency test design takes into account customer requirements in collaboration with the recommendations of leading experts in pesticides analysis. The proficiency test sample design is constructed with 3 samples each, so that 2 different concentration ranges and a blank sample are covered.

1) SANTE 11312/2021 Analytical quality control and method validation procedures for pesticide residues analysis in food and feed.

1-Naphthylacetamide and 1-naphthylacetic acid (sum of 1-naphthylacetamide and 1- naphthylacetic acid and its salts, expressed as 1-naphythlacetic acid)	Flusilazole
2,4-D (sum of 2,4-D, its salts, its esters and its conjugates, expressed as 2,4-D)	Flutriafol
Abamectin (sum of avermectin B1a, avermectin B1b and delta-8,9 isomer of avermectin B1a, expressed as avermectin B1a)	Fluvalinate (sum of isomers) resulting from the use of tau-fluvalinate
Acephate	Fluxapyroxad
Acetamiprid	Folpet (sum of folpet and phtalimide, expressed as folpet)
Aclonifen	Forchlorfenuron
Acrinathrin	Formetanate: Sum of formetanate and its salts expressed as formetanate (hydrochloride)
Aldicarb (sum of aldicarb, its sulfoxide and its sulfone, expressed as aldicarb)	Fosetyl-Al (sum of fosetyl, phosphonic acid and their salts, expressed as fosetyl)
Aldrin and Dieldrin (Aldrin and dieldrin combined expressed as dieldrin)	Fosthiazate
Anthraquinone	Glyphosate
Azadirachtin	Haloxyfop (Sum of haloxyfop, its esters, salts and conjugates expressed as haloxyfop (sum of the R- and S- isomers at any ratio)) (R) (F)
Azinphos-ethyl	Heptachlor (sum of heptachlor and heptachlor epoxide expressed as heptachlor)
Azinphos-methyl	Hexachlorobenzene
Azoxystrobin	Hexachlorocyclohexane (HCH), alpha-isomer
Benzalkonium chloride (mixture of alkylbenzyldimethylammonium chlorides with alkyl chain lengths of C8, C10, C12, C14, C16 and C18)	Hexachlorocyclohexane (HCH), beta-isomer
Bifenthrin (sum of isomers)	Hexaconazole
Bromide ion	Hexythiazox (any ratio of constituent isomers)
Bromophos-ethyl	Imazalil (any ratio of constituent isomers)
Bupirimate	Imidacloprid
Buprofezin	Indoxacarb (sum of indoxacarb and its R enantiomer)

### DRRR proficiency tests for pesticides full analyte list



Deutsches Referenzbüro für Ringversuche und Referenzmaterialien

Captan (Sum of captan and THPI, expressed as captan)	lprodione	
Carbaryl	lprovalicarb	
Carbendazim and benomyl (sum of benomyl and carbendazim expressed as carbendazim)	Isoprothiolane	
Carbofuran (sum of carbofuran (including any carbofuran generated from carbosulfan, benfuracarb or furathiocarb) and 3-OH carbofuran expressed as carbofuran)	Kresoxim-methyl	
Chlorantraniliprole	Lambda-cyhalothrin (includes gam	ma-cyhalothrin) (sum of R,S and S,R isomers)
Chlorat	Linuron	
Chlordane (sum of cis- and trans-chlordane)	Lufenuron (any ratio of constituen	t isomers)
Chlorfenapyr	Malathion (sum of malathion and	malaoxon expressed as malathion)
Chloridazon (sum of chloridazon and chloridazon-desphenyl, expressed as chloridazon)	Maleic hydrazide	
Chlormequat (sum of chlormequat and its salts, expressed as chlormequat-chloride)	Mandipropamid (any ratio of cons	tituent isomers)
Chlorothalonil	Mepiquat (sum of mepiquat and it	s salts, expressed as mepiquat chloride)
Chlorpropham	Metalaxyl and metalaxyl-M (metal including metalaxyl-M (sum of isor	axyl including other mixtures of constituent isomers ners))
Chlorpyrifos	Metazachlor (Sum of metabolites 4 metazachlor)	479M04, 479M08 and 479M16, expressed as
Chlorpyrifos-methyl	Methamidophos	
Clofentezine	Methidathion	
Clomazone	Methiocarb (sum of methiocarb ar methiocarb)	nd methiocarb sulfoxide and sulfone, expressed as
Clothianidin	Methomyl	
Coumaphos	Methoxyfenozide	
Cyantraniliprole	Metrafenone	
Cyazofamid	Monocrotophos	
Cyflufenamid (sum of cyflufenamid (Z-isomer) and its E-isomer, expressed as cyflufenamid)	Myclobutanil (sum of constituent i	somers)
Cyfluthrin (cyfluthrin including other mixtures of constituent isomers (sum of isomers))	Nicotine	
Cymoxanil	Novaluron	
Cypermethrin (cypermethrin including other mixtures of constituent isomers (sum of isomers))	Omethoate	
Cyproconazole	Oxamyl	
Cyprodinil	Paclobutrazol (sum of constituent	isomers)
Clomazone Clothianidin Coumaphos Cyantraniliprole Cyazofamid Cyflufenamid (sum of cyflufenamid (Z-isomer) and its E-isomer, expressed as cyflufenamid) Cyfluthrin (cyfluthrin including other mixtures of constituent isomers (sum of isomers)) Cymoxanil Cypermethrin (cypermethrin including other mixtures of constituent isomers (sum of isomers)) Cyproconazole	Methiocarb (sum of methiocarb an methiocarb) Methomyl Methoxyfenozide Metrafenone Monocrotophos Myclobutanil (sum of constituent i Nicotine Novaluron Omethoate Oxamyl	somers)

## DRRR proficiency tests for pesticides

full analyte list



Deutsches Referenzbüro für Ringversuche und Referenzmaterialien

Cyromazine DDT (sum of p,p'-DDT, o,p'-DDT, p-p'-DDE and p,p'-TDE (DDD) expressed as DDT)	Parathion Parathion-methyl (sum of Parathion-methyl and paraoxon-methyl expressed as
DDT (sum of p,p'-DDT, o,p'-DDT, p-p'-DDE and p,p'-TDE (DDD) expressed as DDT)	Parathion-methyl (sum of Parathion-methyl and paraoxon-methyl expressed as
	Parathion-methyl)
Deltamethrin (cis-deltamethrin)	Penconazole (sum of constituent isomers)
Diazinon	Pendimethalin
Dichlorvos	Permethrin (sum of isomers)
Dicofol (sum of p, p' and o,p' isomers)	Phenmedipham
Didecyldimethylammonium chloride (mixture of alkyl-quaternary ammonium salts with alkyl chain lengths of C8, C10 and C12)	Phenothrin (phenothrin including other mixtures of constituent isomers (sum of isomers))
Difenoconazole	Phosmet (phosmet and phosmet oxon expressed as phosmet)
Diflubenzuron	Pirimicarb
Dimethoate	Pirimiphos-methyl
Dimethomorph (sum of isomers)	Prochloraz (sum of prochloraz, BTS 44595 (M201-04) and BTS 44596 (M201-03), expressed as prochloraz)
Diphenylamine	Profenofos
Diquat	Propamocarb (Sum of propamocarb and its salts, expressed as propamocarb)
Disulfoton (sum of disulfoton, disulfoton sulfoxide and disulfoton sulfone expressed as disulfoton)	Propargite
Dithianon	Propiconazole (sum of isomers)
Dodine	Propyzamide
Emamectin B1a and its salts, expressed as emamectin B1a (free base)	Proquinazid
Endosulfan (sum of alpha- and beta-isomers and endosulfan-sulphate expressed as endosulfan)	Prosulfocarb
Endrin	Prothioconazole: prothioconazole-desthio (sum of isomers)
Epoxiconazole	Pyraclostrobin
Ethephon	Pyridaben
Ethion	Pyrimethanil
Ethirimol	Pyriproxyfen
Ethofumesate (Sum of ethofumesate, 2-keto-ethofumesate, open-ring-2-keto- ethofumesate and its conjugate, expressed as ethofumesate)	Quinalphos
Ethoprophos	Quintozene (sum of quintozene and pentachloro-aniline expressed as quintozene)

## DRRR proficiency tests for pesticides

full analyte list



Deutsches Referenzbüro für Ringversuche und Referenzmaterialien

Etofenprox	
	Spinosad (spinosad, sum of spinosyn A and spinosyn D)
Etoxazole	Spirodiclofen
Famoxadone	Spiromesifen
Fenazaquin	Spirotetramat and spirotetramat-enol (sum of), expressed as spirotetramat
Fenbuconazole (sum of constituent enantiomers)	Spiroxamine (sum of isomers)
Fenbutatin oxide	Sulfoxaflor (sum of isomers)
Fenhexamid	Tebuconazole
Fenitrothion	Tebufenozide
Fenoxycarb	Tebufenpyrad
Fenpropathrin	Tefluthrin (tefluthrin including other mixtures of constituent isomers (sum of isomers))
Fenpropidin (sum of fenpropidin and its salts, expressed as fenpropidin)	Terbuthylazine
Fenpropimorph (sum of isomers)	Tetraconazole
Fenpyrazamine	Thiabendazole
Fenpyroximate	Thiacloprid
Fenthion (fenthion and its oxigen analogue, their sulfoxides and sulfone expressed as parent)	Thiamethoxam
Fenvalerate (any ratio of constituent isomers (RR, SS, RS & SR) including esfenvalerate	) Thiophanate-methyl
Fipronil (sum fipronil + sulfone metabolite (MB46136) expressed as fipronil)	Triadimenol (any ratio of constituent isomers)
Flonicamid (sum of flonicamid, TFNA and TFNG expressed as flonicamid)	Triazophos
Fluazifop-P (sum of all the constituent isomers of fluazifop, its esters and its conjugates, expressed as fluazifop)	Tricyclazole
Flucythrinate (flucythrinate including other mixtures of constituent isomers (sum of isomers))	Trifloxystrobin
Fludioxonil	Triflumizole: Triflumizole and metabolite FM-6-1(N-(4-chloro-2-trifluoromethylphenyl)- n-propoxyacetamidine), expressed as Triflumizole
Fluopicolide	Triflumuron
Fluopyram	Trinexapac (sum of trinexapac (acid) and its salts, expressed as trinexapac)
Flupyradifurone	Vinclozolin



Deutsches Referenzbüro für Ringversuche und Referenzmaterialien

# Microbiology

# product catalogue 2024 / 2025



Image source: science photo/Shutterstock.com

Your laboratory quality for:

- microbiological
- testing

### In the fields:

• Food and feed

Consumer goods in

- food contact such as:
- Films
- Paper/board
- Glass/canning

Consumer goods in body contact such as:

- Cosmetics
- Tattoo ink
- Textiles
- Water
- Disinfectant
- Medical devices
- Building materials
- Parasites

## index

### Microbiological 31 reference material

### **REFERENCE MATERIAL**

Food / Feed	32
Milk and cream	32
Other milk products	33
Cheese	33

- Ice-cream 33
- Milk powder 34
- Fruit and vegetables products 36
  - Egg products 36
  - Non-alcoholic beverages 37
    - Alcoholic beverages 37
      - Meat Products 38
      - Fish and seafood 38
        - Infant formula 39
          - Animal feed 39
    - Other food matrices 39

### **REFERENCE MATERIAL**

Consumer goods in food contact 40	Consumer	goods	in	food	contact	40
-----------------------------------	----------	-------	----	------	---------	----

- Films / synthetic leather 40
  - Paper / board 40
  - Glass / canning 40

### General information

The DRRR	4
News	5

6

- ODIN proficiency testing online
  - Proficiency testing organiation 7
    - Benefits of proficiency testing 8
      - Statistical methods 9
      - z'-score > 2: What to do? 10

## jical 11

Microbiological proficiency testing

### **PROFICIENCY TESTING**

Food / Feed	12
FOOU / Feeu	12
Milk and cream	12
Other milkproducts	13
Cheese	13
Ice-cream	13
Milk powder	14
Fruit and vegetables products	16
Egg products	16
Non-alcoholic beverages	17
Alcoholic beverages	17
Meat Products	18
Fish and seafood	19
Infant formula	19
Animal feed	19

Other food matrices 20

### **PROFICIENCY TESTING**

Consumer goods in food contact	21
Films / synthetic leather	21
Paper / board	21
Glass / canning	21

## index

### **REFERENCE MATERIAL**

- **Consumer goods in body contact** 41
  - Cosmetics 41
  - Tattoo ink 41
    - Textiles 42

### **REFERENCE MATERIAL**

Water	43
Drinking water	43
Surface- and waste water	43
Recooling water	44
Mineral water and table water	44
REFERENCE MATERIAL	
Disinfectant	45

### **REFERENCE MATERIAL**

Medical devices	45
-----------------	----

### **REFERENCE MATERIAL Building materials**

46 **REFERENCE MATERIAL** 

#### Indoor air 46

**REFERENCE MATERIAL** 

- 47
- Parasites

- Other products / services 48
  - **Order form** 49

### **PROFICIENCY TESTING**

Consumer goods in body contact	22
Cosmetics	22
Tattoo ink	22

Textiles 23

### **PROFICIENCY TESTING**

Water	24
Drinking water	24
Surface- and waste water	24
Recooling water	25
Mineral water and table water	25

### **PROFICIENCY TESTING**

Disinfectant	26
--------------	----

8

28

29

29

## **PROFICIENCY TESTING**

PR

Medical devices	27

OFICIENCY TESTING	
Building materials	2

PROFICIENCY	TESTING
	Indoor air

PROFICIENCY TESTING	3
Parasite	s

**PROFICIENCY TESTING** 

Simulated microbiological evaluation

**Registration form** 30

#### additional information 50 Quality management / quality assurance 50 Seminars / training / consulting 51 Sales terms and delivery conditions 53 General terms and conditions 54

Deutsches Referenzbüro für Ringversuche und Referenzmaterialien GmbH (DRRR GmbH)

#### **Proficiency testing provider**

The DRRR offers laboratories from the processing industry as well as official and private laboratories all aspects of quality assurance from one single source. Our focus is on food, consumer goods, packaging, building materials, plastics (polymers) and textiles, as well as microbiological analysis in these categories.

### Accreditation ISO/IEC 17043:2010 (A2LA)

The DRRR is an accredited proficiency testing provider by A2LA according to ISO/IEC 17043:2010. The accreditation is only valid for the matrices/parameters listed on the A2LA scope of accreditation certificate [#5494.01].

Whether a proficiency test is covered or not covered by the scope of accreditation by A2LA can be viewed in our online portal (ODIN).

## Accreditation DIN EN ISO/IEC 17043:2010 (DAkkS)

The DRRR is an accredited proficiency testing provider by DAkkS according to DIN EN ISO/IEC 17043:2010. The accreditation is valid only for the scope listed in the annex of the accreditation certificate [D-EP-17063-01-00].

Whether a proficiency test is covered or not covered by the scope of accreditation by DAkkS can be viewed in our online portal (ODIN).

### **Reference material producer**

We offer many certified reference materials as well as advise on quality matters and quality assurance training in the laboratory and the production.

### **Customer support**

We provide advice to our customers in all question of validation of chemicalphysical, microbiological, organoleptic and physical-mechanical analysis or statistical questions.



Deutsches Referenzbüro für Ringversuche und Referenzmaterialien

#### More than 500 PT's in 2023

### Accredited PT-provider



High-quality reference material

Any time competent contact persons

### proficiency testing schemes

After the establishment of a microbiological laboratory in 2022, the focus since then has been on the further development of already established proficiency tests (e.g. canned food and plastic surfaces), as well as the new development and establishment of new proficiency tests in all areas. In the area of food, a proficiency test in the matrix "alcoholic beverages" (Dekkera bruxellenis in beer) could be implemented for the first time in 2023. Likewise, further new developments in the field of medical devices (identification of microorganisms by means of MALDI-ToF) and disinfectants (bactericidal activity) could be carried out for the first time. Further new developments (e.g. testing of sterilization of medical devices 5 (ISO 11737-1) anaerobic spores) are planned or already underway, such as fungicidal/ levurocidal activity of disinfectants or in the matrix paper / cardboard (inhibition zone test according to DIN EN 1104).

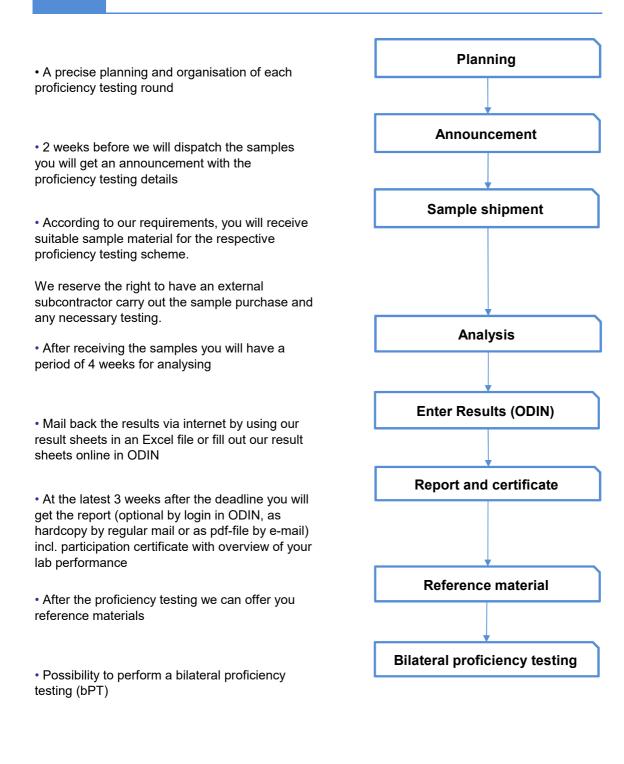
From the year 2024 we offer for the first time " proficiency tests for simulated microbiological evaluation" for various microorganisms and parameters (e.g. aerobic total count, yeasts, molds, lactic acid bacteria, E.coli, etc.). The focus here will be on the evaluation part of the examination and our two-part concept allows the two central steps "colony counting" and "calculation of the microbial load" to be considered separately on the basis of photo sets and raw data tables.

Simply brilliant, your proficiency testing with ODIN (Online Data Information Network).	€
<ul> <li>Fast and easy online registration / online announcement in our online catalogue</li> </ul>	Book Ringtrials Online
<ul> <li>Direct management and booking of the proficiency testing</li> </ul>	
<ul> <li>Overview about the registered proficiency testing schemes</li> </ul>	Proficiency testing catalog
• Fast and secure submission of your results via ODIN	
<ul> <li>Online access to individual customers reports and certificates</li> </ul>	Enter Results Online
<ul> <li>Supervisor rights available to overview all PTs of a multi-site company</li> </ul>	•
On the set of a set of the second the set of the second	Booked proficiency testings
<ul> <li>Saving of costs through booking and submission of your results via ODIN</li> </ul>	
Secure payment with IRIS (Internet Remuneration Information Service).	Download Reports and Certificates
<ul> <li>Easy and safe payment by credit card</li> </ul>	
	Booked proficiency testings
Overview about all invoices	

Fast and secure online access

You can also pay your invoice via banktransfer or bank check.

## **Proficiency testing organisation**



#### Why take part in proficiency testing?

• Participation in proficiency testing schemes is required by international standards or national facilities, organizations and customers

• Participants can compare, assure and improve their own performance and quality against other laboratories worldwide

• Laboratories can recognize how well they have been completed with the applied method compared to the other laboratories

- · Saving on the costs of testing
- Unquestionable lab performance towards customers, authorities and certification authorities
- Saving on the costs of lab development and maintenance
- Saving on the costs of lab development and maintenance
- Saving on production costs by avoiding waste of raw material

## Your benefits in DRRR proficiency testing schemes

• Objective and independent impression of your quality and your performance of your routine testing method compared to the other participating laboratories

• Saving the costs, because you have the opportunity to analzye more samples and more parameters in one proficiency testing

• External demonstration of your performance with the results of the proficiency testing

• Build up of your own external quality assurance system with our statistical tools (contains statistical control charts, MS-Excel evaluation files and reference materials). With these tools incorporated your external quality assurance rays unmatched confidence

• Detailed planning and organization of your proficiency testing and an easier, faster and better communication with us



Image source: iStock.com/3dts

## Statistical methods

### We work according to:

- ISO Guide 31 / 35
- DIN EN ISO 17034
- DIN EN ISO/IEC 17020 / 17025 / 17043
- ISO 13528

#### Laboratory performance:

by calculation of the following paramters:

- z-score
- z'-score
- CRD-Wert

#### Statistical models:

Depending on the type of the distribution of the data, different statistic models are used:

- Conventional statistics (all values)
- · Conventional statistics (no outliers)
- Robust statistics (Hampel estimator, Q-method)
- Robust statistics (Median, MAD/nIQR)

: \*

· Expert laboratory (expert decision)

Homogenous and stable sample material

Calculation of precision data acc. to ISO 5725-2 in many proficiency testing schemes

Selection of statistical method with the chi<sup>2</sup>-fit test

reference method (if available) case data are available)

Method-specific evaluation according to the

Additional extended method evaluation (in

You are not satisfied with your laboratory performance: What can you do?

Due to your showed laboratory performance you have been asked by the accreditation body, the monitoring authority or your customer to initiate measures to improve your laboratory performance.

These measures are often connected with considerable efforts in the laboratory and you only have a short time frame. In many cases the proof of a successful measure processing, by participation in a new proficiency testing round, is only possible in the following year. Until now it does not exist a possibility for a spontaneous performance review to equalize a previous unsatisfactory proficiency testing result.

## New: The bilateral proficiency testing (bPT)!

You can book and perform individually and flexibly the bilateral proficiency testing during a determined time period.

You receive a proficiency testing sample for analyzing. You submit the results of the testing. After that you will get your proof of performance as a z'-score calculation in the form of a certificate within 1 - 2 weeks.

The performance evaluation refers to the previous regular proficiency testing, so that you can connect the bPT to the regular proficiency testing round. The used sample material is derived from a previous proficiency testing round and provides the possibility of a comparable performance evaluation with the regular proficiency testing.

#### Your terms and conditions:

Participation in a bPT is open to all laboratories. Prior participation in our regular proficiency tests is not necessary.

The report of this proficiency testing is not older than ten weeks. You register within these ten weeks for the bPT and the performance is confirmed by the DRRR. The testing period is dependent on the technical factors (parameter, matrix etc.) and will be agreed individually\*. When this time is over after the sample shipment and you do not have sent us your results in this time, we can not evaluate your results and issue a certificate for you.

(\* normally not longer than 1 - 2 weeks) The bPT is not in the scope of accreditation of the DRRR. The realization of the bPT depends on the availability of the material.

#### Costs bPT

The costs are identical to the costs of the respective proficiency test from our standard program (see ODIN) plus shipping costs.

Alternative you can also order reference material.

#### **Features**

The microbiological proficiency testing rounds are characterized by the application of vegetative microorganisms and spores and not lyophylisates. This means that we are exclusively working with

· living bacteria

living yeasts and moulds

in our real matrices.

#### **Testing with matrix reference**

Through the use of vegetative microorganisms we ensure that the bacteria have an actual matrix reference and the participants can use their own nutrient media and their internal testing method in a real system of matrix and microorganism.

#### Use of mono germ systems

we substantially apply "mono germ systems" which means that only 1 germ or bacterium has to be analyzed in the corresponding proficiency testing. Due to that fact we are able to avoid unrequested negative effects caused by other microorganisms during the analysis and the following evaluation of the results.

#### **Statistical evaluation**

Take advantage of our statistical evaluation system. The evaluation of the proficiency testing is based on the highest scientific and statistical level. Therefore the participating laboratories have a very precise feedback on their actual performance.

#### **Laboratory Measurement**

By using our market-leading statistical evaluation, additional information such as laboratory uncertainty and various scattering of each laboraotires can be presented. Vegetative microorganisms and spores

Matrix reference

Mono germ systems

**Evaluation** 

Market-leading statistical evaluation

Art. No.	Proficiency testing type <sup>[A]</sup>	requested parameters	period	To view pricing information visit our online Portal:
2010013	E.coli milk 1 risk group 1, frozen	E.coli, total count quantitative (2 samples milk)	May-24	Login or register
2010463	E.coli milk 2 risk group 1, frozen	E.coli, total count quantitative (2 samples milk)	Nov-24	
2010033	Enterobact. milk 1 risk group 1, frozen	Enterobacteriaceae, total count quantitative (2 samples milk)	May-24	
2010465	Enterobact. milk 2 risk group 1, frozen	Enterobacteriaceae, total count quantitative (2 samples milk)	Nov-24	
2010089	Campylobacter spp. milk risk group 2, frozen	Campylobacter spp. qualitative (3 samples milk)	May-24	
2010467	aerobic spores milk risk group 1, frozen	aerobic mesophilic spores, total count quantitative (2 samples milk)	May-24	
2010546	psychrotrophic bacteria milk risk group 1, frozen	psychrotrophic total count (7°C), psychrotrophic total count (21°C) quantitative (2 samples milk)	Nov-24	
2010604	EHEC O157 milk risk grup 3**, frozen	EHEC O157 qualitative (3 samples milk)	Jul-24	
2010606	EHEC O104 milk risk grup 3**, frozen	EHEC O104 qualitative (3 samples milk)	Jul-24	
2010608	EHEC Screening milk risk grup 3**, frozen	at least 1 of the EHEC strain O26, O103, O111, O145, O157, O104, O121 and O118 (3 samples milk)	Jul-24	
2010612	total count in milk 1 risk group 1, frozen	aerobic total count (2 samples milk)	May-24	
2010614	total count in milk 2 risk group 1, frozen	<b>aerobic total count</b> (2 samples milk)	Nov-24	
2010926	Geotrichum spp. in milk (lactic mould) risk group 1, frozen	Geotrichum spp., aerobic total count (2 samples milk)	Nov-24	
2010924	yeasts in milk risk group 1, frozen	<b>yeasts, aerobic total count</b> (2 samples milk)	Aug-24	
2010944	norovirus milk risk group 2, frozen	determination of norovirus qualitative (3 samples)	Aug-24	

### milk and cream

12

[A] = For accredited and non-accredited status please see Online portal (ODIN)

## microbiological proficiency testing

For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (<u>www.DRRR.de</u>). You can also use the registration forms on page 30 of this catalogue.

## other milk products

Art. No.	Proficiency testing type <sup>[A]</sup>	requested parameters	period	To view pricing information visit our online Portal:
2010317	characteristic microorganisms yoghurt risk group 1	Lactobacillus bulgaricus, Streptococcus thermophilus (2 samples à 10g yoghurt)	May-24	Login or register

### cheese

Art. No.	Proficiency testing type <sup>[A]</sup>	requested parameters	period
2010111	E.coli cheese risk group 1, frozen	E.coli, total count quantitative (2 samples cheese, 2 samples reference solution)	Jul-24
2010176	yeasts cheese risk group 1, frozen	Yeasts, total count quantitative (2 samples cheese)	May-24
2010178	moulds cheese risk group 1, frozen	Moulds, total count quantitative (2 samples cheese)	May-24
2010137	Listeria cheese risk group 2, frozen	Listeria monocytogenes qualitative (3 samples cheese)	Aug-24
2010469	coagulase-positive Staphylococcus cheese risk group 2, frozen	coagulase-positive Staphylococcus, total count quantitative (2 samples cheese)	Jul-24
2010471	Enterobact. cheese risk group 1, frozen	Enterobacteriaceae, total count quantitative (2 samples cheese, 2 samples reference solution)	Jul-24
2010156	Bacillus cereus processed cheese risk group 2, frozen	Bacillus Cereus, total count quantitative (2 samples processed cheese)	May-24

### ice-cream

Art. No.	Proficiency testing type <sup>[A]</sup>	requested parameters	period
2010548	Enterobact. ice-cream risk group 1, frozen	Enterobacteriaceae, total count quantitative (2 samples ice-cream, 2 samples reference solution)	Jul-24
2010:200	Salmonella spp. ice-cream risk group 2, frozen	Salmonella spp. qualitative (3 samples ice-cream)	Jul-24
2010552	E.coli ice-cream risk group 1, frozen	E.coli, total count quantitative (2 samples ice-cream, 2 samples reference solution)	Jul-24
2010554	L.monocytogenes ice-cream risk group 2, frozen	Listeria monocytogenes qualitative (3 samples ice-cream)	Jul-24

[A] = For accredited and non-accredited status please see Online portal (ODIN)

## milk powder

Art. No.	Proficiency testing type <sup>[A]</sup>	requested parameters	period	To view pricing information visit our online Portal:
2010160	Coliforme bact. milk powder risk group 1, frozen	Coliforme total count, aerobic total count quantitative (2 samples milk powder)	May-24	Login or register
2010063	yeasts milk powder 1	yeasts, total count quantitative	Jan-24	
2010003	risk group 1, frozen	(2 samples milk powder)	Jan-25	
2010473	yeasts milk powder 2 risk group 1, frozen	<b>yeasts, total count quantitative</b> (2 samples milk powder)	Sep-24	
2010065	moulds milk powder 1	moulds, total count quantitative	Feb-24	
2010003	risk group 1, frozen	(2 samples milk powder)	Feb-25	
2010475	moulds milk powder 2 risk group 1, frozen	moulds, total count quantitative (2 samples milk powder)	Nov-24	
2010477	Enterobact. milk powder	Enterobacteriaceae, total count quantitative	Jan-24	
2010477	risk group 1, frozen	(2 samples milk powder, 2 samples reference solution)	Jan-25	
2010479	E.coli milk powder	E.coli, total count quantitative (2 samples milk powder, 2 samples reference	Jan-24	
2010479	risk group 1, frozen	solution)	Jan-25	
2010481	lactobacillus milk powder risk group 1, frozen	lactobacillus, total count quantitative (2 samples milk powder)	Nov-24	
2010483	Shigella spp. milk powder risk group 2, frozen	Shigella spp. qualitative (3 samples milk powder)	May-24	
2010095	Enterococcus milk powder risk group 1, frozen	Enterococcus, total count quantitative (2 samples milk powder)	Apr-24	
2010057	Clostridia milk powder risk group 2, frozen	sulfite-reducing Clostridia, anaerobic, mesophilic, sulfite-reducing spores, anaerobic total count, C.perfringens quantitative (2 samples milk powder)	Jun-24	
2010940	Clostridia milk powder qualitative risk group 2, frozen	sulfit-reducing Clostridia (SRC) qualitative (3 samples milk powder)	Jun-24	
2010109	Bacillus cereus milk powder risk group 2, frozen	Bacillus Cereus, total count quantitative (2 samples milk powder)	May-24	
2010932	Bacillus cereus milk powder qualitative risk group 2, frozen	B.cereus qualitative (3 samples milk powder)	May-24	

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## milk powder

15

Art. No.	Proficiency testing type <sup>[A]</sup>	requested parameters	period	To view pricing information visit our online Portal:
2010081	Cronobacter spp. milk powder	Cronobacter spp. (= Enterobacter Sakazakii) qualitative	Mar-24	Login or register
2010001	risk group 2, frozen	(3 samples milk powder)	Mar-25	
2010148	Salmonella spp. milk powder	Salmonella spp. qualitative	Mar-24	
2010110	risk group 2, frozen	(3 samples milk powder)	Mar-25	
2010485	Salmonella spp. milk powder 2 risk group 2, frozen	Salmonella spp. qualitative (3 samples milk powder)	Nov-24	
2010083	coagulase-positive	coagulase-positive Staphylococcus, total	Mar-24	
2010065	Staphylococcus milk powder risk group 2, frozen	count quantitative (2 samples milk powder)	Mar-25	
2010930	coagulase-positive Staphylococcus milk powder	coagulase-positive Staphylococcus qualitative	Mar-24	
2010930	qualitative risk group 2, frozen	(3 samples milk powder)	Mar-25	
0040050	Listeria milk powder 1	Listeria monocytogenes quantitative and qualitative, total count	Jan-24	
2010059	risk group 2, frozen	(3 samples for qualitative testing, 2 samples for quantitative testing)	Jan-25	
2010153	Listeria milk powder 2 risk group 2, frozen	Listeria monocytogenes quantitative and qualitative, total count (3 samples for qualitative testing, 2 samples for quantitative testing)	Aug-24	
2010534	thermophilic bacteria (55 °C) milk powder risk group 1, frozen	thermophilic aerobic total count (55 °C, vegetative), thermalresistant Spores of thermophilic bacteria (2 samples milk powder)	Sep-24	
2010934	anaerobic, mesophilic spores milk powder risk group 2, frozen	anaerobic, mesophilic spores milk powder total count quantitative (2 samples milk powder)	Sep-24	
2010938	Pseudomonas spp. milk powder qualitative risk group 1, frozen	<b>Pseudomonas spp. qualitative</b> (3 samples milk powder)	Jun-24	

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16

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Art. No.	Proficiency testing type <sup>[A]</sup>	requested parameters	period	To view pricing information visit our online Portal:
2010043	yeasts fruit preparation	<b>yeasts quantitative and qualitative</b> (3 samples for qualitative testing, 2 samples for quantitative testing)	Aug-24	Login or register
2010101	moulds fruit preparation risk group 1, frozen	moulds quantitative and qualitative (3 samples for qualitative testing, 2 samples for quantitative testing)	Aug-24	
2010487	Listeria vegetables qualitative risk group 2, frozen	Listeria monocytogenes qualitative (3 samples vegetables)	Aug-24	
2010489	Listeria vegetables quantitative risk group 2, frozen	Listeria monocytogenes, total count quantitative (2 samples vegetables)	Aug-24	
2010536	osmophilic yeasts sugar solution risk group 1, frozen	osmophilic yeasts, total count quantitative (2 samples sugar solution)	Apr-24	
2010538	osmophilic moulds sugar solution risk group 1, frozen	osmophilic moulds, total count quantitative (2 samples sugar solution)	Apr-24	
2010563	yeasts dates risk group 1, frozen	yeasts, aerobic total count quantitative (2 Psamples dates)	Apr-24	
2010565	moulds dates risk group 1, frozen	moulds, aerobic total count quantitative (2 Psamples dates)	Apr-24	

## fruit and vegetables products

### egg products

Art. No.	Proficiency testing type <sup>[A]</sup>	requested parameters	period
2010495	Enterobact. egg products risk group 1, frozen	Enterobacteriaceae, total count quantitative (2 samples egg product, 2 samples reference solution)	Dec-24
	Salmonella spp. mayonnaise risk group 2, frozen	Salmonella spp. qualitative (3 samples mayonaise)	Dec-24
2010530	Salmonella spp. egg products risk group 2, frozen	Salmonella spp. qualitative (3 samples egg products)	Dec-24
	E.coli egg products risk group 1, frozen	E.coli, total count quantitative (2 samples egg product, 2 samples reference solution)	Dec-24

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Art. No.	Proficiency testing type <sup>[A]</sup>	requested parameters	period	To view pricing information visit our online Portal:
2010097	E.coli fruit juice risk group 1, frozen	E.coli, total count quantitative (2 samples fruit juice)	Apr-24	Login or register
2010199	spoiling agents in fruit juice concentrate & compounds 1 risk group 1, frozen	1 microorganism out of 3 different classes: Lactobacillus, yeasts and acid-tolerant bacteria (3 samples for qualitative testing, 2 samples for quantitative testing)	Apr-24	
2010491	spoiling agents in fruit juice concentrate & compounds 2 risk group 1, frozen	1 microorganism out of 3 different classes: acid-tolerant bacilli, moulds, yeasts (3 samples for qualitative testing, 2 samples for quantitative testing)	Nov-24	
2010493	Alicyclobacillus spp. fruit juice concentrate & compounds risk group 1, frozen	Alicyclobacillus spp. qualitative (3 samples fruit juice concentrate and beverage compounds)	Oct-24	
2010544	Salmonella spp. Tee risk group 2, frozen	Salmonella spp. qualitative (3 samples tea)	Nov-24	
2010592	yeasts fruit juice concentrate risk group 1, frozen	yeasts, total count quantitative (2 samples fruit juice concentrate)	Apr-24	
2010594	moulds fruit juice concentrate risk group 1, frozen	moulds, total count quantitative (2 samples fruit juice concentrate)	Apr-24	
2010596	lactobacillus fruit juice risk group 1, frozen	lactobacillus, total count quantitative (2 samples fruit juice concentrate)	Apr-24	
2010598	acetic acid bacteria fruit juice concentrate risk group 1, frozen	acetic acid bacteria (acid tolerant, gram- negative bacteria), total count quantitative (2 samples fruit juice concentrate)	Apr-24	
2010946	E.coli coffee risk group 1, frozen	<b>E.coli, total count</b> (2 samples coffee)	Aug-24	
2010948	Coliforme bacteria coffee risk group 1, frozen	coliforme bacteria, total count (2 samples coffee)	Aug-24	

## non-alcoholic beverages

17

## alcoholic beverages

Art. No.	Proficiency testing type <sup>[A]</sup>	requested parameters	period	
	Dekkera bruxellensis wine qualitative risk group 1, frozen	Dekkera bruxellensis qualitative (3 samples)	Aug-24	
	Dekkera bruxellensis beer qualitative risk group 1, frozen	Dekkera bruxellensis qualitative (3 samples)	Aug-24	

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18

Art. No.	Proficiency testing type <sup>[A]</sup>	requested parameters	period	To view pricing information visit our online Portal:
2010035	E.coli ground meat 1	E.coli, total count quantitative	Mar-24	Login or register
2010035	risk group 1, frozen	(2 samples ground meat, 2 samples reference solution)	Mar-25	
2010499	E.coli ground meat 2 risk group 1, frozen	E.coli, total count quantitative (2 samples ground meat, 2 samples reference solution)	Nov-24	
2010020	Enterobact. ground meat 1	Enterobacteriaceae, total count quantitative	Mar-24	
2010039	risk group 1, frozen	(2 samples ground meat, 2 samples reference solution)	Mar-25	
2010501	Enterobact. ground meat 2 risk group 1, frozen	Enterobacteriaceae, total count quantitative (2 samples ground meat, 2 samples reference solution)	Nov-24	
2010142	coagulase-positive	coagulase-positive Staphylococcus, total	Mar-24	
2010142	Staphylococcus ground meat risk group 2, frozen	(2 samples ground, meat)	Mar-25	
2010110	Salmonella spp. ground meat	Salmonella spp. qualitative	Mar-24	
2010140	1 risk group 2, frozen	(3 samples ground meat)	Mar-25	
2010503	Salmonella spp. ground meat 2 risk group 2, frozen	Salmonella spp. qualitative (3 samples ground meat)	Nov-24	
2010174	Pseudomonas spp. ground meat risk group 2, frozen	Pseudomonas spp., total count quantitative (2 samples ground meat)	Jun-24	
2010151	Listeria ground meat	Listeria monocytogenes qualitative	Mar-24	
2010151	qualitative 1 risk group 2, frozen	(3 samples ground meat)	Mar-25	
2010505	Listeria ground meat qualitative 2 risk group 2, frozen	Listeria monocytogenes qualitative (3 samples ground meat)	Aug-24	
2010507	Listeria ground meat quantitative risk group 2, frozen	Listeria monocytogenes, total count quantitative (2 samples ground meat)	Aug-24	
2010212	lactobacillus ground meat	lactobacillus, total count quantitative	Mar-24	
2010212	risk group 1, frozen	(2 samples ground meat)	Mar-25	
2010146	Campylobacter spp. poultry meat risk group 2, frozen	Campylobacter spp. qualitative (3 samples poultry)	May-24	
2010936	Coliforme bacteria ground meat risk group 1. frozen	<b>coliforme bacteria, total count quantitative</b> (2 samples ground meat)	Aug-24	
2010942	Clostridia ground meat risk group 2, frozen	sulfit-reducing Clostridia (SRC), anaerobic total count, sulfit-reducing spores, C.perfringens quantitative (2 samples ground meat)	Jun-24	
2010277	Brochothrix thermosphacta ground meat qualitataive risk group 1, frozen	Brochothrix thermosphacta qualitative (3 samples	Aug-24	

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Art. No.	Proficiency testing type <sup>[A]</sup>	requested parameters	period	To view pricing information visit our online Portal:
2010509	Yersinia enterocolitica seafood risk group 2, frozen	Yersinia enterocolitica qualitative (3 samples seafood)	May-24	Login or register
2010511	pathogenic Vibrio spp. seafood risk group 2, frozen	pathogenic Vibrio spp. qualitative (3 samples seafood)	May-24	
2010540	Salmonella spp. seafood risk group 2, frozen	Salmonella spp. qualitative (3 samples seafood)	May-24	

### fish and seafood

## infant formula

Art. No.	Proficiency testing type <sup>[A]</sup>	requested parameters	period
2010521	infant food variation 1 risk group 2	minimum 1 out of variable parameters quantitative: SRC, yeasts, moulds, TVC 30°C; minimum 1 out of variable parameters qualitative: and Salmonella spp., Cronobacter spp. and Enterobacteriaceae (3-6 samples baby food)	Aug-24
2010182	Bifidobacteria infant food	Bifidobacteria quantitative (2 samples baby food)	Jul-24
2010117	identification of germs infant food risk group 1/2	<b>variable germs</b> (1-3 samples baby food)	Aug-24
2010273	Enterobacteriaceae infant formula (powder) qualitative risk group 1	Enterobacteriaceae qualitative (3 samples)	Aug-24

## animal feed

Art. No.	Proficiency testing type <sup>[A]</sup>	requested parameters	period	
12010188	Clostridia animal feed risk group 2, frozen	sulfite-reducing Clostridia (vegetative), lactobacilli, anaerobic mesophilic sulfite- reducing spores, anaerobic mesophilic total spores quantitative (2 samples animal feed)	Aug-24	
2010319	Salmonella spp. animal feed risk group 2, frozen	Salmonella spp. qualitative (3 samples animal feed)	Dec-24	

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Art. No.	Proficiency testing type <sup>[A]</sup>	requested parameters	period	To view pricing information visit our online Portal:
2010144	Salmonella spp. chocolate	Salmonella spp. qualitative	Mar-24	Login or register
2010144	risk group 2, frozen	(3 samples chocolate)	Mar-25	
2010513	Listeria convenience products risk group 2, frozen	Listeria monocytogenes qualitative (3 samples prepared meal)	Aug-24	
2010515	Salmonella spp. spice powder risk group 2, frozen	Salmonella spp. qualitative (3 samples spice powder)	Dec-24	
2010542	Salmonella spp. herbage risk group 2, frozen	Salmonella spp. qualitative (3 samples herbage)	Dec-24	

### other food matrices

[A] = For accredited and non-accredited status please see Online portal (ODIN)

### **Consumer goods in food contact:**

## films / synthetic leather

Art. No.	Proficiency testing type <sup>[A]</sup>	requested parameters	period	To view pricing information visit our online Portal:
12010119	moulds plastic surface	determination of surface bacteria count moulds quantitative (2 samples á 2 foil samples)	Sep-24	Login or register
2010191	aerobic total count plastic surface risk group 1	determination of surface bacteria count aerobic total count quantitative (2 samples á 2 foil samples)	Sep-24	

### paper / board

21

Art. No.	Proficiency testing type <sup>[A]</sup>	requested parameters	period
2010352	ispore-torming pacteria poard	determination of spores of aerobic spore- forming bacteria quantitative (2-4 samples)	Nov-24
	Paper - transition of antimicrobial components (EN 1104)	Determination of transition of antimicrobial components (EN 1104; inhinbition zone test) (3 samples)	Nov-24

## glass / canning

Art. No.	Proficiency testing type <sup>[A]</sup>	requested parameters	period	
2010172	mesophilic sterility testing tinned food risk group 1, frozen	mesophilic germ load (products with low acidity (pH > 4,5)) (3 samples tinned food)	Sep-24	
2010928	thermophilic sterility testing tinned food risk group 1, frozen	thermophilic germ load (55°C) (products with low acidity (pH > 4,5)) (3 samples tinned food)	Sep-24	
2010950	anaerobic mesophilic spores tinned food risk group 2, frozen	anaerobic, mesophilic spores qualitative (3 samples tinned food)	Sep-24	

[A] = For accredited and non-accredited status please see Online portal (ODIN)

### **Consumer goods in body contact:**

## cosmetics

Art. No.	Proficiency testing type <sup>[A]</sup>	requested parameters	period	To view pricing information visit our online Portal:
2010071	aerobic bacteria O/W-emulsion risk group 2, frozen	aerobic bacteria quantitative (2 samples O/W-emulsion)	Oct-24	Login or register
2010079	moulds O/W-emulsion risk group 1, frozen	<b>moulds quantitative</b> (2 samples O/W-emulsion)	Oct-24	
2010077	identification of germs O/W-emulsion risk group 2, frozen	Identification of variable germs qualitative (3 samples O/W-emulsion)	Oct-24	
2010356	S.aureus (ATCC 6538) O/W-emulsion risk group 2, frozen	<b>S.aureus qualitative</b> (3 samples O/W-emulsion)	Oct-24	
2010358	E.coli (ATCC 8739) O/W-emulsion risk group 2, frozen	<b>E.coli qualitative</b> (3 samples O/W-emulsion)	Oct-24	
2010360	C.albicans (ATCC 10231) O/W-emulsion risk group 2, frozen	<b>C.albicans qualitative</b> (3 samples O/W-emulsion)	Oct-24	
2010362	Ps.aeruginosa (ATCC 9027) O/W-emulsion risk group 2, frozen	<b>Ps.aeruginosa qualitative</b> (3 samples O/W-emulsion)	Oct-24	
For the fol	lowing proficiency testing sc	heme you can not enter your results	online:	
2010085	challenge test O/W-emulsion risk group 2, cooled	challenge test (determination after 0, 2, 7, 14 and 28 days of all 5 relevant microorganism) (5 samples O/W-emulsion)	Apr-24	

### tattoo ink

Art. No.	Proficiency testing type <sup>[A]</sup>	requested parameters	period	
2010354	aerobic bacteria in tattoo ink quantitative risk group 1, frozen	aerobic total count quantitative (2 samples tattoo ink)	Oct-24	

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### **Consumer goods in body contact:**

### textiles

Art. No.	Proficiency testing type <sup>[A]</sup>	requested parameters	period	To view pricing information visit our online Portal:
2010076	Antimicrobial Fabric Test textiles - AATCC 100	anitbacterial activity quantiative method (1 - 2 textile samples)	May-24	Login or register
2010078	Antibacterial Parallel Streak textiles - AATCC 147	anitbacterial activity qualitative method (Size of the inhibition zones [mm]) (1 - 3 textile samples)	May-24	
2010080	Antibacterial Activity textiles - ISO 20743	- Staphylococcus aureus - Klebsiella pneumoniae anitbacterial activity quantitative using absorption method (incl. plate count procedure) (2 textile samples)	May-24	
2010082	4-field test - microbial reduction textiles EN 16615	anitbacterial activity levurocidal activity quantiative method (1 - 2 textile samples)	May-24	
2011104	Antibacterial Activity textiles - AATCC 90	Antibacterial effect qualitative method (size of inhibition zomes [mm]) (3 textile samples)	May-24	

## plastics - surfaces

Art. No.	Proficiency testing type <sup>[A]</sup>	requested parameters	period	
2010623	Antibacterial activity plastics - ISO 22196	Measurement of antibacterial activity on plastic surfaces	May-24	

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Art. No.	Proficiency testing type <sup>[A]</sup>	requested parameters	period	To view pricing information visit our online Portal:
2010654	E.coli / Coliforme bacteria drinking water risk group 1	E.coli / Coliforme bacteria quantitative (2 samples and corresponding matrix)	Apr-24	Login or register
2010656	aerobic total count drinking water risk group 1	aerobic total count quantitative (aerobic total count at 22 °C, aerobic total count at 36 °C (2 samples and corresponding matrix)	Apr-24	
2010658	Enterococcus drinking water quantitative risk group 1/2	Enterococcus quantitative (2 samples and corresponding matrix)	Apr-24	
2010660	Ps.aeruginosa drinking water risk group 2	<b>Ps.aeruginosa quantitative</b> (2 samples and corresponding matrix)	Jul-24	
2010662	identification of germs drinking water risk group 2	identification of variable micro organisms quantitative (samples (positive or negative) and corresponding matrix)	Apr-24	
2010114	Legionella spp. drinking water risk group 2	Legionella spp. quantitative (2 samples (positive or negative) and corresponding matrix)	Sep-24	

## drinking water

## surface- and waste water

Art. No.	Proficiency testing type <sup>[A]</sup>	requested parameters	period	
2010670	E.coli / Coliforme bacteria surface- and waste water risk group 1	E.coli / Coliforme bacteria quantitative (2 samples and corresponding matrix)	Apr-24	
2010672	Enterococcus surface- and waste water risk group 1/2	Enterococcus quantitative (2 samples and corresponding matrix)	Apr-24	

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## recooling water

25

Art. No.	Proficiency testing type <sup>[A]</sup>	requested parameters	period	To view pricing information visit our online Portal:
2010958	Legionella recooling water risk group 2	Legionella quantitative (2 lyophilised samples and water)	Sep-24	Login or register
2010960	Pseudomonas aeruginosa recooling water risk group 2	<b>Pseudomonas aeruginosa quantitative</b> (2 lyophilised samples and water)	Jul-24	
2010962	total count recooling water	total count quantitative (2 lyophilised samples and water)	Jul-24	

## mineral water and table water

Art. No.	Proficiency testing type <sup>[A]</sup>	requested parameters	period
2010674	aerobic total count mineral water and table water risk group 1	aerobic total count at 20 °C, aerobic total count at 37 °C quantitative (2 samples and corresponding matrix)	Apr-24
2010676	streptococci (faecal) mineral water and table water risk group 2	streptococci (faecal) mineral water and table water qualitative (3 samples and corresponding matrix)	Oct-24
2010680	Pseudomonas aeruginosa mineral water and table water risk group 2	Pseudomonas aeruginosa qualitative (3 samples and corresponding matrix)	Oct-24
2010952	sulfite-reducing, spore- forming anaerobes mineral water risk group 2	anaerobic, sulfit-reducing spores qualitative (3 samples and water)	Aug-24
2010134	Coliforme bacteria mineral water and table water risk group 1	Coliforme bacteria qualitative (3 samples and water)	Oct-24
2010138	E.coli mineral water and table water risk group 1	E.coli qualitative (3 samples and water)	Oct-24

[A] = For accredited and non-accredited status please see Online portal (ODIN)

### disinfectant

Art. No.	Proficiency testing type <sup>[A]</sup>	requested parameters	period	To view pricing information visit our online Portal:
2010686	bactericidal activity (phase 2 / step 1-test)	quantitative suspension test         S.aureus (ATCC 6538), Ps.aeruginosa         (ATCC 15442)         test conditions:         (a) 20 °C         (b) 5, 15, 30 and 60 minutes         (c) with and without organic load	Jun-24	<u>Login or register</u>
2010688	fungicidal / yeasticidal activity (phase 2 / step 1-test)	quantitative suspension test Aspergillus niger (ATCC 16404), Candida albicans (ATCC 10231) test conditions: (a) 20 ℃ (b) 5, 15, 30 and 60 minutes (c) with and without organic load	Jun-24	
2010690	mycobactericidal, tuberculocidal activity (phase 2 step 1)	quantitative suspension test         Mycobacterium terrae (ATCC 15769),         Mycobacterium avium (ATCC 15755)         test conditions:         (a) 20 °C         (b) 5, 15, 30 and 60 minutes         (c) with and without organic load	Jun-24	
2010692	sporicidal activity (phase 1- test)	quantitative suspension test Bacillus subtilus-Spores (ATCC 6633) test conditions: (a) 20 °C (b) 30, 30 and 120 minutes	Jun-24	
2010694	virucidal activity (chem. disinfectant, phase 2 step 1)	quantitative suspension test         Poliovirus (type 1),         Adenovirus (type 5)         test conditions:         (a) 20 °C         (b) 5, 15, 30 and 60 minutes         (c) with and without organic load	Jun-24	

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Art. No.	Proficiency testing type <sup>[A]</sup>	requested parameters	period	To view pricing information visit our online Portal:
2010696	testing of sterilization of medical devices 1 (ISO 11737-1) risk group 1	aerobic total count quantitative (2 transparent bags)	Jun-24	Login or register
2010964	testing of sterilization of medical devices 2 (ISO 11737-1) risk group 1	<b>yeasts quantitative</b> (2 samples)	Jun-24	
2010966	testing of sterilization of medical devices 3 (ISO 11737-1) risk group 1	<b>moulds quantitative</b> (2 samples)	Jun-24	
2010968	testing of sterilization of medical devices 4 (ISO 11737-1) risk group 1	aerobic spores quantitative (2 samples)	Jun-24	
2011171	testing of sterilization of medical devices 5 (ISO 11737-1) risk group 2	anaerobic spores quantitative (2 transparent bags)	Jun-24	
2010281	Tests for in vitro cytotoxicity (ISO 10993-5)	<b>Tests for in vitro cytotoxicity (ISO 10993-5)</b> (3 samples)	Nov-24	
2010283	Microbial barrier testing of packaging materials risk group 1	Testing the germ tightness of packaging materials (2 samples)	Nov-24	
2010657	Identification of microorganisms using MALDI-ToF risk group 2	Identification of microorganisms using MALDI-ToF (1 sample)	Nov-24	
2010321	Test method Medical face masks (EN 14683)	Bacterial filter efficiency and pressure difference (1 sample á 12 face masks)	May-24	
2010567	microbiological analysis of endoscopes risk group 2	Germ identification on rinse water (3 samples)	Oct-24	

### medical devices

27

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## other building materials

Art. No.	Proficiency testing type <sup>[A]</sup>	requested parameters	period	To view pricing information visit our online Portal:
	moulds (contact samples) risk group 2	<b>moulds quantitative</b> (2 samples building material)	Apr-24	Login or register
2010004	moulds (material samples) risk group 2	<b>moulds qualitative</b> (3 samples building material)	Apr-24	

## indoor air

Art. No.	Proficiency testing type <sup>[A]</sup>	requested parameters	period	
2010954		<b>moulds quantitative</b> (2 samples gel filter)	Jul-24	
IZU IU930	yeasts indoor air risk group 1	<b>yeasts quantitative</b> (2 samples gel filter)	Jul-24	

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### parasites

Art. No.	Proficiency testing type <sup>[A]</sup>	requested parameters	period	To view pricing information visit our online Portal:
2010285	cryptosporidia risk group 1	Detection by ELISA (1-3 SAF tubes)	Jun-24	Login or register
2010287	trypanosoma risk group 1	Microscopic detection (1-3 slide preparations)	Jun-24	
2010289	Plasmodium falciparum	Microscopic detection (1-3 slide preparations)	Jun-24	
2010291	ectoparasites risk group 1	Microscopic identification (1-3 slide preparations)	Jun-24	
2010293	Parasites (general) risk group 1	Microscopic identification (1-3 slide preparations)	Jun-24	

# simulated microbiological evaluation

Art. No.	Proficiency testing type <sup>[A]</sup>	requested parameters	period
2011198	Simulated evaluation aerobic total count	colony counting (2 photo sets), Calculation of germ load (raw data table)	Jul-24
2011199	Simulated evaluation aerobic spore-forming bacteria	colony counting (2 photo sets), Calculation of germ load (raw data table)	Jul-24
2011200	Simulated evaluation yeasts	colony counting (2 photo sets), Calculation of germ load (raw data table)	Jul-24
2011201	Simulated evaluation mould	colony counting (2 photo sets), Calculation of germ load (raw data table)	Jul-24
2011202	Simulated evaluation lactic acid bacteria	colony counting (2 photo sets), Calculation of germ load (raw data table)	Jul-24
2011203	Simulated evaluation Sulfite- reducing clostridia	colony counting (2 photo sets), Calculation of germ load (raw data table)	Jul-24
2011204	Simulated evaluation E.coli and Coliforms	colony counting (2 photo sets), Calculation of germ load (raw data table)	Jul-24

[A] = For accredited and non-accredited status please see Online portal (ODIN)

<u>29</u>

# registration form proficiency testing

Deutsches Referenzbüro für Ringversuche und Referenzmaterialien

Article No. / proficiency testing type	period	result release and report online (ODIN)	result release by e- mail / fax; report by e- mail	additional sample sets

For proficiency testing schemes labelled with "risk group 2, or 3\*\*" we need a permission or an exemption for working with pathogenic microorganisms of your lab if existing in your country (e.g. "infection protection law (IfSG)" in Germany). The appropriate form you can find in the product catalogue on page 57.

Up to nine additional result sheets can be returned for chemical-physical, microbiological and physical-mechanical proficiency testing rounds are free of charge. As a participant, you benefit from our international recognized proficiency testing schemes. By submitting up to ten result sheets you are now enabled to run international comparisions to check different methods and different lab technicians with one proficiency testing round. Your benefit: Participating in DRRR-proficiency testing services save costs for your quality assurance! If you need additional sample sets, you have the opportunity to order it according to our latest product catalogue.

Please note, that the free of charge service is only valid for returning result sheets by ODIN. If you send us your results by mail, fax or postal delivery, the additional result sheet will be charged according the latest product catalogue as a sample set equivalent.

In very rare individual cases an accredited proficiency testing round will not be carried out within the scope of accreditation due to technical or organizational reasons. In these rare cases the DRRR will inform the participants before the start of the proficiency testing round, thus before the sample shipment. An immediately free cancellation for the participants is possible until the date of the sample shipment.

Your registration is an one-time order. It is only valid for one year. Cancelation fees apply when cancelling a registration. If you want to have a permanent-registration please tick the box on the right side.

30

Please send registration to: fax-no. +49 (0)8 31/960 878-99 e-mail: <u>info@DRRR.de</u> online via <u>www.odin.drrr.de</u>

- O this registration is permanent-registration and valid until my cancelation
- O An offer with the total costs is needed
- O A Purchase order from the purchasing department will follow

with your signature you agree with our general terms and conditions.

date

signature

#### Importance

Reference material is a substance or item with one or more defined (known) characteristics and sufficient homogeneity.

#### Benefit of using certified reference materials

These materials are suitable for the calibration of equipment, for the quality assurance of testing methods or to analyse derivate reference materials. DRRR-Reference materials are essential for the chemical, physical, microbiological and sensory analytics as well as for the quality assurance. Standards for the accreditation of testing and calibration laboratories demand the using of reference materials.

The use of reference materials (RM) and certified reference materials (CRM) is an important procedure to avoid mistakes in the lab routine.

### Characteristics

- the reference value is developed by the total number of results of the participants of proficiency testing (consensus value)
- DRRR-Reference materials do always refer to
- a DRRR-Proficiency testing
- reliable reference values according to
- advanced statistical evaluation
- independent service without influence of
- societies organisations and federations

The opportunity to collaborate with the best laboratories for the different requirements assures the high quality of our materials

#### Identification

The reference materials listed on the following pages have specific article numbers to identify the materials. To supply our customers with consistently high quality the DRRR-reference materials will be replaced regularly by corresponding materials during the year. Currently available reference materials and its corresponding reference values will be sent on request. We reserve our right to send you always the latest materials. Description reference material

Profit with our high quality standards for your lab work

Reference materials meet all requirements of the ISO Guides 31 and 35, but it does not exist any accreditation for reference materials.

Availability and order request of reference material

Please use the order from on page 49.

### milk and cream

Art. No.	material description	parameter *	additional information**	packaging unit	prices
2201001	reference solution E.coli risk group 1, frozen	E.coli (TBX), total count (PC)	quantitative testing	10 ml	101€
2201002	reference solution Enterobacteriaceae risk group 1, frozen	Enterobacteriaceae (VRBD), total count (PC)	quantitative testing	10 ml	101 €
2201003	E.coli milk risk group 1, frozen	E.coli (TBX), total count (PC)	quantitative testing	10 ml	101 €
2201004	Enterobacteriaceae milk risk group 1, frozen	Enterobacteriaceae (VRBD), total count (PC)	quantitative testing	10 ml	101€
2201005	aerobic spores milk risk group 1, frozen	aerobic spores (PC), total count (PC)	quantitative testing	10 ml	101 €
2201006	Campylobacter spp. milk risk group 2, frozen	Campylobacter spp. (CCD)	qualitative testing positive or negative	25 ml	pos. 71 € neg. 55 €
2201076	psychrotrophic bacteria milk risk group 1, frozen	psychrotrophic total count (7°C) (PC), psychrotrophic total count (21°C) (PC)	quantitative testing	10 ml	101€
2201074	yeasts milk risk group 1, frozen	yeasts (YGC), total count (PC)	quantitative testing	10 ml	101€
2201075	Geotrichum milk (lactic mould) risk group 1, frozen	Geotrichum spp. (YGC) aerobic total count (PC)	quantitative testing	10 ml	101€
2201091	EHEC O157 milk risk grup 3**, frozen	EHEC O157	qualitative testing positive or negative (only available during the period of the proficiency testing)	25 ml	pos. 71 € neg. 55 €
2201092	EHEC O104 milk risk grup 3**, frozen	EHEC O104	qualitative testing positive or negative (only available during the period of the proficiency testing)	25 ml	pos. 71 € neg. 55 €
2201085	norovirus milk risk group 2, frozen	determination of norovirus	qualitative testing positive or negative	25 g	pos. 71 € neg. 55 €

\* sometimes we used more than one method per paramter

Please use the order from on page 49.

# other milk products

Art. No.	material description	parameter *	additional information**	packaging unit	prices
2201101	characteristic microorganisms yoghurt risk group 1	Lactobacillus bulgaricus, Streptococcus thermophilus	quantitative testing	10 g	71€

### cheese

Art. No.	material description	parameter *	additional information**	packaging unit	prices
2201007	E.coli cheese risk group 1, frozen	E.coli (TBX), total count (PC)	quantitative testing	10 g	101€
2201008	L.monocytogenes cheese risk group 2, frozen	L.monocytogenes (ALOA)	qualitative testing positive or negative	25 g	pos. 71 € neg. 55 €
2201009	Enterobacteriaceae cheese risk group 1, frozen	Enterobacteriaceae (VRBD), total count (PC)	quantitative testing	10 g	101€
2201010	moulds cheese risk group 1, frozen	Moulds (YGC), total count (PC)	quantitative testing	10 g	101€
2201011	yeasts cheese risk group 1, frozen	Yeasts (YGC), total count (PC)	quantitative testing	10 g	101€
2201012	coagulase-positive Staphylococcus cheese risk group 2, frozen	coagulase-positive Staphylococcus (BP), total count (PC)	quantitative testing	10 g	101€
2201013	B.cereus processed cheese risk group 2, frozen	B.cereus (MYP), total count (PC)	quantitative testing	10 g	101€

### ice-cream

Art. No.	material description	parameter *	additional information**	packaging unit	prices
2201063	Enterobacteriaceae ice-cream risk group 1, frozen	Enterobacteriaceae (VRBD), total count (PC)	quantitative testing	10 g	101€
2201065	Salmonella spp. ice-cream risk group 2, frozen	Salmonella spp. (XLD)	qualitative testing positive or negative	25 g	pos. 71 € neg. 55 €
2201064	E.coli ice-cream risk group 1, frozen	E.coli (TBX), total count (PC)	quantitative testing	10 g	101€
2201066	L.monocytogenes ice-cream risk group 2, frozen	L.monocytogenes (ALOA)	qualitative testing positive or negative	25 g	pos. 71 € neg. 55 €

\* sometimes we used more than one method per paramter

\*\* The values of the germ contens varies for each material from 101 to 103 KBE and can be asked before order.

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Please use the order from on page 49.

### milk powder

Art. No.	material description	parameter *	additional information**	packaging unit	prices
2201014	coliforme bacteria milk powder risk group 1, frozen	coliforme total count (VRBL), total count (PC)	quantitative testing	10 g	101 €
2201015	moulds milk powder risk group 1, frozen	moulds (YGC), total count (PC)	quantitative testing	10 g	101 €
2201016	yeasts milk powder risk group 1, frozen	yeasts (YGC), total count (PC)	quantitative testing	10 g	101 €
2201017	E.coli milk powder risk group 1, frozen	E.coli (TBX), total count (PC)	quantitative testing	10 g	101 €
2201018	Enterobacteriaceae milk powder risk group 1, frozen	Enterobacteriaceae (VRBD), total count (PC)	quantitative testing	10 g	101 €
2201019	Enterococcus milk powder risk group 1, frozen	Enterococcus (CATC), total count (PC)	quantitative testing	10 g	101 €
2201020	Lactobacillus milk powder risk group 1, frozen	Lactobacillus (MRS), total count (PC)	quantitative testing	10 g	101€
2201021	Shigella spp. milk powder risk group 2, frozen	Shigella spp. (HEA / XLD)	qualitative testing positive or negative	25 g	pos. 71 € neg. 55 €
2201022	Clostridia milk powder risk group 2, frozen	sulfite-reducing Clostridia, anaerobic, mesophilic, sulfite-reducing spores, anaerobic total count, C.perfringens	quantitative testing	10 g	101 €
2201083	Clostridia milk powder qualitative risk group 2, frozen	sulfit-reducing Clostridia (SRC)	qualitative testing positive or negative	25 g	pos. 71 € neg. 55 €
2201023	B.cereus milk powder risk group 2, frozen	B.cereus (MYP), total count (PC)	quantitative testing	10 g	101 €
2201079	B.cereus milk powder qualitative risk group 2, frozen	B.cereus (MYP)	qualitative testing positive or negative	25 g	pos. 71 € neg. 55 €
2201024	Cronobacter spp. milk powder risk group 2, frozen	Cronobacter spp. (ESIA)	qualitative testing positive or negative	25 g	pos. 71 € neg. 55 €

\* sometimes we used more than one method per paramter \*\* The values of the germ contens varies for each material from 101 to 103 KBE and can be asked before order.

Please use the order from on page 49.

### milk powder

Art. No.	material description	parameter *	additional information**	packaging unit	prices
2201025	Salmonella spp. milk powder risk group 2, frozen	Salmonella spp. (XLD)	qualitative testing positive or negative	25 g	pos. 71 € neg. 55 €
2201026	coagulase-positive Staphylococcus milk powder quantitative risk group 2, frozen	coagulase-positive Staphylococcus (BP), total count (PC)	quantitative testing	10 g	101€
2201078	coagulase-positive Staphylococcus milk powder qualitative risk group 2, frozen	coagulase-positive Staphylococcus (BP)	qualitative testing positive or negative	25 g	pos. 71 € neg. 55 €
2201028	L.monocytogenes milk powder qualitative risk group 2, frozen	L.monocytogenes (ALOA)	qualitative testing positive or negative	25 g	pos. 71 € neg. 55 €
2201027	L.monocytogenes milk powder quantitative risk group 2, frozen	L.monocytogenes (ALOA), total count (PC)	quantitative testing	10 g	101€
2201062	thermophilic bacteria milk powder risk group 1, frozen	thermophilic aerobic total count (55 °C, vegetative), thermalresistant Spores of thermophilc bacteria	quantitative testing	10 g	101€
2201080	anaerobic, mesophilic spores milk powder risk group 2, frozen	anaerobic, mesophilic spores milk powder, total count quantitative (PC)	quantitative testing	10 g	101€
2201082	Pseudomonas spp. milk powder risk group 2, frozen	Pseudomonas spp. (CFC)	qualitative testing positive or negative	25 g	pos. 71 € neg. 55 €

\* sometimes we used more than one method per paramter

Please use the order from on page 49.

# fruit and vegetables products

Art. No.	material description	parameter *	additional information**	packaging unit	prices
2201029	moulds fruit preparation quantitative risk group 1, frozen	Moulds (YGC)	quantitative testing	10 g	101€
2201030	moulds fruit preparation qualitative risk group 1, frozen	Moulds (YGC)	qualitative testing positive or negative	25 g	pos. 71 € neg. 55 €
2201031	yeasts fruit preparation quantitative risk group 1, frozen	yeasts (YGC)	quantitative testing	10 g	101€
2201032	yeasts fruit preparation qualitative risk group 1, frozen	yeasts (YGC)	qualitative testing positive or negative	25 g	pos. 71 € neg. 55 €
2201033	L.monocytogenesvegetable s quantitative risk group 2, frozen	L.monocytogenes (ALOA), total count (PC)	quantitative testing	10 g	101€
2201034	L.monocytogenesvegetable s quailtative risk group 2, frozen	L.monocytogenes (ALOA)	qualitative testing positive or negative	25 g	pos. 71 € neg. 55 €
2201067	osmophiilic yeasts sugar solution risk group 1, frozen	osmophilic yeasts (YGC), total count (PC)	quantitative testing	10 g	101€
2201068	osmophilic moulds sugar solution risk group 1, frozen	osmophilic moulds (YGC), total count (PC)	quantitative testing	10 g	101€
2201102	yeasts dates risk group 1, frozen	yeasts, aerobic total count	quantitative testing	10 g	101€
2201103	moulds dates risk group 1, frozen	moulds, aerobic total count	quantitative testing	10 g	101 €

# egg products

Art. No.	material description	parameter *	additional information**	packaging unit	prices
2201036	Salmonella spp. mayonnaise risk group 2, frozen	Salmonella spp. (XLD)	qualitative testing positive or negative	25 g	pos. 71 € neg. 55 €
2201037	Enterobacteriaceae egg products risk group 1, frozen	Enterobacteriaceae (VRBD), total count (PC)	quantitative testing	10 g	101€
2201056	Salmonella spp. egg products risk group 2, frozen	Salmonella spp. (XLD)	qualitative testing positive or negative	25 g	pos. 71 € neg. 55 €
2201057	E.coli egg products risk group 1, frozen	E.coli (TBX), total count (PC)	quantitative testing	10 g	101 €

\* sometimes we used more than one method per paramter

\*\* The values of the germ contens varies for each material from 101 to 103 KBE and can be asked before order.

Please use the order from on page 49.

# non-alcoholic beverages

Art. No.	material description	parameter *	additional information**	packaging unit	prices
2201035	E.coli fruit juice risk group 1, frozen	E.coli (TBX), total count (PC)	quantitative testing	10 ml	101€
2201058	Alicyclobacillus spp. in fruit juice concentrate and beverage compounds qualitative risk group 1, frozen	Alicyclobacillus spp. (BAT)	qualitative testing positive or negative	10 ml	pos. 71 € neg. 55 €
2201061	Salmonella spp. tea risk group 2, frozen	Salmonella spp. (XLD)	qualitative testing positive or negative	25 g	pos. 71 € neg. 55 €
2201069	yeasts fruit juice concentrate risk group 1, frozen	yeasts (YGC), total count (PC)	quantitative testing	10 ml	101€
2201070	moulds fruit juice concentrate risk group 1, frozen	moulds (YGC), total count (PC)	quantitative testing	10 ml	101€
2201071	lactobacillus fruit juice risk group 1, frozen	Lactobacillus (MRS), total count (PC)	quantitative testing	10 ml	101€
2201072	acetic acid bacteria fruit juice concentrate risk group 1, frozen	acetic acid bacteria (OSA), total count (PC)	quantitative testing	10 ml	101€
2201086	E.coli coffee risk group 1, frozen	E.coli (TBX), total count (PC)	quantitative testing	10 ml	101€
2201087	Coliforme bacteria coffee risk group 1, frozen	coliforme bacteria (VRB), total count (PC)	quantitative testing	10 ml	101€
2201090	spoiling agents in fruit juice concentrate and beverage risk group 1, frozen	sponing agent quantative microorganisms can vary between Lactobacillus, yeasts and acid- tolerant bacteria, acid-tolerant bacilli, moulds, yeasts	qualitative testing positive or negative	25 g	pos. 71 € neg. 55 €

# alcoholic beverages

Art. No.	material description	parameter *	additional information**	packaging unit	prices
2201094	Dekkera bruxellensis wine risk group 1, frozen	Dekkera bruxellensis	qualitative testing positive or negative	25 g	pos. 71 € neg. 55 €

\* sometimes we used more than one method per paramter \*\* The values of the germ contens varies for each material from 101 to 103 KBE and can be asked before order.

Please use the order from on page 49.

# meat products

Art. No.	material description	parameter *	additional information**	packaging unit	prices
2201038	E.coli ground meat 1 risk group 1, frozen	E.coli (TBX), total count (PC)	quantitative testing	10 g	101€
2201039	Enterobact. ground meat 1 risk group 1, frozen	Enterobacteriaceae (VRBD), total count (PC)	quantitative testing	10 g	101€
2201040	Lactobacillus ground meat risk group 1, frozen	Lactobacillus (MRS), total count (PC)	quantitative testing	10 g	101€
2201041	coagulase-positive Staphylococcus ground meat risk group 2, frozen	coagulase-positive Staphylococcus (BP), total count (PC)	quantitative testing	10 g	101€
2201042	Pseudomonas spp. ground meat risk group 2, frozen	Pseudomonas spp. (CFC), total count (PC)	quantitative testing	10 g	101€
2201043	Salmonella spp. ground meat risk group 2, frozen	Salmonella spp. (XLD)	qualitative testing positive or negative	25 g	pos. 71 € neg. 55 €
2201044	L.monocytogenes ground meat quantitative risk group 2, frozen	L.monocytogenes (ALOA), total count (PC)	quantitative testing	10 g	101€
2201045	L.monocytogenes ground meat qualitative risk group 2, frozen	L.monocytogenes (ALOA)	qualitative testing positive or negative	25 g	pos. 71 € neg. 55 €
2201046	Campylobacter spp. poultry risk group 2, frozen	Campylobacter spp. (CCD)	qualitative testing positive or negative	25 g	pos. 71 € neg. 55 €
2201081	Coliforme Bakterien ground meat risk group 1, frozen	coliforme bacteria, total count (PC)	quantitative testing	10 g	101€
2201084	Clostridia ground meat risk group 2, frozen	sulfit-reducing Clostridia (SRC), anaerobic total count, sulfit-reducing spores, C.perfringens	quantitative testing	10 g	101€
2201095	Brochothrix thermosphacta ground meat risk group 1, frozen	Brochothrix thermosphacta	qualitative testing positive or negative	25 g	pos. 71 € neg. 55 €

### fish and seafood

Art. No.	material description	parameter *	additional information**	packaging unit	prices
2201047	Yersinia enterocolitica seafood risk group 2, frozen	Yersinia enterocolitica	qualitative testing positive or negative	25 g	pos. 71 € neg. 55 €
2201048	pathogenic Vibrio spp. seafood risk group 2, frozen	pathogenic Vibrio spp.	qualitative testing positive or negative	25 g	pos. 71 € neg. 55 €
2201060	Salmonella spp. seafood risk group 2, frozen	Salmonella spp. (XLD)	qualitative testing positive or negative	25 g	pos. 71 € neg. 55 €

\* sometimes we used more than one method per paramter

Please use the order from on page 49.

# animal feed

Art. No.	material description	parameter *	additional information**	packaging unit	prices
2201053	Clostridia animal feed risk group 2, frozen	sulfite-reducing Clostridia (vegetative), lactobacilli, anaerobic mesophilic sulfite-reducing spores, anaerobic mesophilic total spores, total count (PC)	quantitative testing	20 g	101 €
2201054	Salmonella spp. animal feed risk group 2, frozen	Salmonella spp. (XLD)	qualitative testing positive or negative	25 g	pos. 71 € neg. 55 €

# infant formula

Art. No.	material description	parameter *	additional information**	packaging unit	prices
2201093	Enterobacteriaceae infant formula (powder) risk group 1	Enterobacteriaceae	qualitative testing positive or negative	25 g	pos. 71 € neg. 55 €

# other food matrices

Art. No.	material description	parameter *	additional information**	packaging unit	prices
2201049	Salmonella spp. chocolate risk group 2, frozen	Salmonella spp. (XLD)	qualitative testing positive or negative	25 g	pos. 71 € neg. 55 €
2201050	Salmonella spp. spice powder risk group 2, frozen	Salmonella spp. (XLD)	qualitative testing positive or negative	25 g	pos. 71 € neg. 55 €
2201052	L.monocytogenes convenience products risk group 2, frozen	L.monocytogenes (ALOA)	qualitative testing positive or negative	25 g	pos. 71 € neg. 55 €
2201059	Salmonella spp. herbage risk group 2, frozen	Salmonella spp. (XLD)	qualitative testing positive or negative	10 g	pos. 71 € neg. 55 €

\* sometimes we used more than one method per paramter

\*\* The values of the germ contens varies for each material from 101 to 103 KBE and can be asked before order.

### Please use the order from on page 49.

### **Consumer goods in food contact:**

# films / synthetic leather

Art. No.	material description	parameter *	additional information**	packaging unit	prices
2231001	moulds plastic surface	surface determination of moulds	quantitative testing	2 foils	101€
2251002	aerobic total count plastic surface risk group 1	surface determination of aerobic bacteria	quantitative testing	2 foils	101€

### paper / board

Art. No.	material description	parameter *	additional information**	packaging unit	prices
2251003	spore-forming bacteria board <sup>risk group</sup> 1	surface determination of spore- forming bacteria	quantitative testing	1 sample	101€
2251029	Determination of transition of antimicrobial components (EN 1104; inhinbition zone test)	Determination of transition of antimicrobial components (EN 1104; inhinbition zone test)	qualitative testing positive or negative	1 sample	pos. 71 € neg. 55 €

# glass / canning

Art. No.	material description	parameter *	additional information**	packaging unit	prices
2251004	mesophilic sterility testing tinned food risk group 1, frozen	mesophilic germ load (products with low acidity (pH > 4,5))	qualitative testing positive or negative	190 g	pos. 71 € neg. 55 €
2251019	thermophilic sterility testing tinned food risk group 1, frozen	thermophilic germ load (55°C) (products with low acidity (pH > 4,5))	qualitative testing positive or negative	190 g	pos. 71 € neg. 55 €
2251020	anaerobic mesophilic spores tinned food risk group 2, frozen	anaerobic, mesophilic spores	qualitative testing positive or negative	190 g	pos. 71 € neg. 55 €

\* sometimes we used more than one method per paramter

### Please use the order from on page 49.

### **Consumer goods in body contact:**

### cosmetics

Art. No.	material description	parameter *	additional information**	packaging unit	prices
2251005	aerobic bacteria O/W- emulsion risk group 2, frozen	aerobic bacteria (CASO)	quantitative testing	10 g	101€
2251006	moulds O/W-emulsion	moulds (SDA)	quantitative testing	10 g	101€
2251007	E.coli O/W-emulsion risk group 2 frozen	ATCC 8739 E.coli (CASO)	qualitative testing positive or negative	10 g	on request
2251008	S.aureus O/W-emulsion risk group 2, frozen	ATCC 6538 S.aureus (CASO)	qualitative testing positive or negative	10 g	on request
2251009	identification of germs O/W-emulsion risk group 2, frozen	identification of germs	qualitative testing positive or negative	10 g	on request
2251010	C.albicans O/W-emulsion risk group 2, frozen	ATCC 10231 C.albicans (SDA / PDA)	qualitative testing positive or negative	10 g	on request
2251011	Ps.aeruginosa O/W-emulsion risk group 2, frozen	ATCC 9027 Ps.aeruginosa (CASO)	qualitative testing positive or negative	10 g	on request
2251028	challenge test O/W- emulsion risk group 2, cooled	challenge test (determination after 0, 2, 7, 14 and 28 days of all 5 relevant microorganism)	on request	on request	101€

### tatto ink

Art. No.	material description	parameter *	additional information**	packaging unit	prices
2251012	aerobic bacteria in tattoo ink risk group 1, frozen	aerobic bacteria (PC)	quantitative testing	10 ml	101€

\* sometimes we used more than one method per paramter

Please use the order from on page 49.

### **Consumer goods in body contact:**

### textiles

Art. No.	material description	parameter *	additional information**	packaging unit	prices
2251024	Antimicrobial Fabric Test textiles - AATCC 100	anitbacterial activity quantiative method	quantitative testing	on request	115€
2251025	Antibacterial Parallel Streak textiles - AATCC 147	anitbacterial activity qualitative method (Size of the inhibition zones [mm])	qualitative testing	on request	115€
2251026	Antibacterial Activity textiles ISO 20743	- Staphylococcus aureus - Klebsiella pneumoniae anitbacterial activity quantitative using absorption method (incl. plate count procedure)	quantitative testing	on request	115€
2251027	4-field test - microbial reduction textiles EN 16615	anitbacterial activity levurocidal activity quantiative method	quantitative testing	on request	115€

# plastics - surfaces

Art. No.	material description	parameter *	additional information**	packaging unit	prices
2251035		Measurement of antibacterial activity on plastic surfaces	quantitative testing	on request	115€

\* sometimes we used more than one method per paramter

Please use the order from on page 49.

# drinking water

Art. No.	material description	parameter *	additional information**	packaging unit	prices
2221001	E.coli / Coliforme bacteria drinking water risk group 1	E.coli / Coliforme bacteria	quantitative testing	on request	on request
2221002	aerobic total count drinking water risk group 1	aerobic total count	quantitative testing	on request	on request
2221003	Enterococcus drinking water quantitative risk group 1/2	Enterococcus	quantitative testing	on request	on request
2221004	Ps. Aeruginosa drinking water risk group 2	Ps. Aeruginosa	quantitative testing	on request	on request
2221005	identification of germs drinking water risk group 1/2	identification of variable micro organisms	quantitative testing	on request	on request
2221021	Legionella spp. drinking water risk group 2	Legionella spp. quantitative	quantitative testing	on request	on request

### surface- and waste water

Art. No.	material description	parameter *	additional information**	packaging unit	prices
	E.coli / Coliforme bacteria surface- and waste water risk group 1	E.coli / Coliforme bacteria	quantitative testing	on request	on request
2221010	Enterococcus surface- and waste water risk group 2	Enterococcus	quantitative testing	on request	on request

\* sometimes we used more than one method per paramter

\*\* The values of the germ contens varies for each material from 101 to 103 KBE and can be asked before order.

Please use the order from on page 49.

### recooling water

Art. No.	material description	parameter *	additional information**	packaging unit	prices
2221018	Legionella spp. recooling water risk group 2	Legionella spp.	quantitative testing	on request	on request
2221017	Pseudomonas aeruginosa recooling water risk group 2	Pseudomonas aeruginosa	quantitative testing	on request	on request
2221016	total count recooling water risk group 2	total count	quantitative testing	on request	on request

# mineral water and table water

Art. No.	material description	parameter *	additional information**	packaging unit	prices
2221011	aerobic total count mineral water and table water risk group 1	aerobic total count	quantitative testing	on request	on request
2221012	streptococci (faecal) mineral water and table water risk group 2	streptococci (faecal)	qualitative testing positive or negative	on request	on request
2221013	E.coli mineral water and table water risk group 1	E.coli	qualitative testing positive or negative	on request	on request
2221022	Coliforme bacteria mineral water and table water risk group 1	Coliforme bacteria	qualitative testing positive or negative	on request	on request
2221014	Pseudomonas aeruginosa mineral water and table water risk group 2	Pseudomonas aeruginosa	qualitative testing positive or negative	on request	on request
2221015	sulfite-reducing, spore- forming anaerobes mineral water and table water risk group 2	anaerobic, sulfit-reducing spores	quantitative testing	on request	on request

\* sometimes we used more than one method per paramter

\*\* The values of the germ contens varies for each material from 101 to 103 KBE and can be asked before order.

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Please use the order from on page 49.

### disinfectant

Art. No.	material description	parameter *	additional information**	packaging unit	prices
2251013	bactericidal activity	S.aureus (ATCC 6538), Ps.aeruginosa (ATCC 15442)	quantitative testing	on request	on request
2251014	fungicidal / yeasticidal activity	Aspergillus niger (ATCC 16404), Candida albicans (ATCC 10231)	quantitative testing	on request	on request
2251015	mycobactericidal / tuberculocidal activity	Mycobacterium terrae (ATCC 15769), Mycobacterium avium (ATCC 15755)	quantitative testing	on request	on request
2251016	sporicidal activity	Bacillus subtilus-Sporens (ATCC 6633)	quantitative testing	on request	on request
2251017	virucidal activity	Poliovirus (type 1), Adenovirus (type 5)	quantitative testing	on request	on request

### medical devices

Art. No.	material description	parameter *	additional information**	packaging unit	prices
2251018	testing for sterilization of medical devices 1 (ISO 11737-1) <sup>risk group</sup> 1	aerobic total count	quantitative testing	1 sample	101€
2251021	testing for sterilization of medical devices 2 (ISO 11737-1) risk group 1	yeasts	quantitative testing	1 sample	101€
2251022	testing for sterilization of medical devices 3 (ISO 11737-1) risk group 1	moulds	quantitative testing	1 sample	101€
2251023	testing for sterilization of medical devices 4 (ISO 11737-1) risk group 1	aerobic spores	quantitative testing	1 sample	101€
2251030	Tests for in vitro cytotoxicity (ISO 10993-5)	Tests for in vitro cytotoxicity (ISO 10993-5)	qualitative testing	3 samples	on request
2251031	Testing the germ tightness of packaging materials risk group 1	moulds	qualitative testing	1 sample	101€
2251032	Identification of microorganisms using MALDI-ToF risk group 2	Identification of microorganisms using MALDI-ToF	qualitative testing	1 sample	101€
2251033	Test method Medical face masks (EN 14683)	Bacterial filter efficiency and pressure difference	quantitative testing	1 sample á 5 face masks	101€
2251034	microbiological analysis of endoscopes risk group 2	Germ identification on rinse water (3 samples)	quantitative testing	on request	101€

\* sometimes we used more than one method per paramter

\*\* The values of the germ contens varies for each material from 101 to 103 KBE and can be asked before order.

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Please use the order from on page 49.

# other building materials

Art. No.	material description	parameter *	additional information**	packaging unit	prices
2281001	moulds (contact samples) building material risk group 1/2	Moulds	quantitative testing	on request	on request
2281002	moulds (material samples) building material risk group 1/2	Moulds	qualitative testing positive or negative	on request	on request

# indoor air

Art. No.	material description	parameter *	additional information**	packaging unit	prices
2221019	moulds indoor air risk group 1	Moulds	quantitative testing	1 filter	101€
2221020	yeasts indoor air risk group 1	Yeasts	quantitative testing	1 filter	101€

\* sometimes we used more than one method per paramter

\*\* The values of the germ contens varies for each material from 101 to 103 KBE and can be asked before order.

Please use the order from on page 49.

### parasites

Art. No.	material description	parameter *	additional information**	packaging unit	prices
2201096	cryptosporidia risk group 1	Detection by ELISA	qualitative testing	on request	on request
2201097	trypanosoma risk group 1	Microscopic detection	qualitative testing	on request	on request
2201098	Plasmodium falciparum	Microscopic detection	qualitative testing	on request	on request
2201099	ectoparasites risk group 1	Microscopic identification	qualitative testing	on request	on request
2201100	Parasites (general) risk group 1	Microscopic identification	qualitative testing	on request	on request

\* sometimes we used more than one method per paramter \*\* The values of the germ contens varies for each material from 101 to 103 KBE and can be asked before order.

### **48** other products / services

### Please use the order from on page 49.

material description	description	additional information	packaging unit	price
ADR- security certified DRRR- freezing packaging system RM-ADR VP 1	Our certified packagings fulfill the requirements of ADR especially of the dan-gerous goods directive GGVSE and GGVSee. These systems are also convenient for the shipping of pathogenic bacteria of risk group 2.	guaranteed temperature assurance: 24 hours	VP 1 app. 310 x 250 x 190 mm	16€
ADR- security certified DRRR- freezing packaging system RM-ADR VP 2	Our certified packagings fulfill the requirements of ADR especially of the dan-gerous goods directive GGVSE and GGVSee. These systems are also convenient for the shipping of pathogenic bacteria of risk group 2.	guaranteed temperature assurance: 48 hours	VP 2 app. 350 x 350 x 300 mm	26€

49	order form reference material	Referenzbüro für Ringversuche und Referenzmaterialien
quantity	material type / material description / article no.	notes (e.g. time period for regular delivery)
For referenc	e materials labelled with "risk group 2, or 3**" we need a permission or a	an exemption for working with

pathogenic microorganisms of your lab if existing in your country (e.g. "infection protection law (IfSG)" in Germany). The appropriate form you can find in the product catalogue on page 57.

Please notice that we process
orders only at a minimum order
value of 50 €.

conditions.

Please send order form to: fax-no. +49 (0)8 31/960 878-99 or e-mail: info@DRRR.de

- O An offer with the total costs is needed
- O A Purchase order from the purchasing department will follow

DRRR-customer number		
company		
company (additional line)		
contact person		
street		
post-code /city		
country (if not Germany)		
fon		
fax		
e-mail		
e-mail for invoices		
VAT-ID-No. (if available)		
With your signature you agree with our general terms and	 	

signature

quality management / quality assurance

We have collected wide experience in building up and operating process orientated quality management systems. Our experience is based on an intensive quality management qualification (DQG –EOQ quality manager). Feedback of our costumers gives us a wide overview about the various requirements that companies have to pass at audit situations.

As a qualified and examined auditor (DGQ-EOQ auditor quality, TGA) we are capable to estimate a company from different perspectives if quality management system is fit for audit and following we can show potentials for improvement.

We offer assistance for the following questions:

- building up process orientated quality management
- building up of a secure testing agent system
- assessment of quality systems in preparation for audits
- advice in operating effective quality management systems

With our expertise in interpreting ISO 9001 over IFS to DIN 17025 we serve companies of food economy and laboratories.

On the basis of our international activities we also have experience in building up and implementation of quality management systems in developing countries. We place our services at your disposal for international questions.

Please do not hesitate to contact us.

#### **IR-Seminar**

The IR-seminar explains how to analyze different kind of food by IR spectroscopy. Furthermore specific peculiarties for the IR calibartion of selected food will be discussed. The specific peculiarties of the calibration will be explained intensify. How to calibrate? When you have to update the calibration? What is the cause of measurement problems?

#### **Sensory seminar**

The importance of the sensory in the food stuff industry will be explained and clarified in practice. The current state of new tastes is presented. Furthermore the participant will be enabling to apply the sensory testing methods. The use of sensory methods will be explained and on the basis of various sensory materials implemented.

#### **User-Workshop**

Typical questions in the chemical and microbiological analysis of food, especially dairy products are presented and possible solutions will be demonstrated.

Furthermore efficient ways to increase the laboratory quality will be presented. The seminar is accompanied by the practical experience of users.

#### Statistics seminar for beginners

This seminar presents the Binomial-, Poissonand Normal distribution and the application of them. Problem cases and the classis misinterpretation due to a false outlier treatment by the application of the Normal distribution are shown.

#### Statistics seminar for advanced learners

This seminar presents the Shapiro-Wilk-Test, qui<sup>2</sup>-adaptation test, Median and MAD (Median absolute deviation) and their application. Furthermore the participants will be informed about the robust standard deviation after Qmethod and the robust average after Hampel. The seminar will be complemented by theoretical exercises on IR spectroscopy. In the practical excericise calibration data sets will be testes for suitability and critical data sets will be identifed.

The sensory measurement uncertainty of each participant will be determined at a practical example.

A lot of space for the exchanging of knowledge and experience is provided at the User-Workshop. Therefore some experts are available as contact persons.

The seminar is complemented by practical exercises with the notebook.

The seminar is complemented by practical exercises with the notebook.

# Implementation of DIN EN ISO/IEC 17025 in food laboratories

The participants will learn all items to implement a successful internal audit. Furthermore typical errors of the implementation of the audit will be targeted and avoidance strategies are communicated. The reliable identification of the deviation in audits and their successful processing in the form of measures will be trained.

### Inhouse-Training

We consider lectures, training and seminars as in important duty. Not primary concerning commercial possibilities but by reason that the knowledge transfer is the most important item in every department of our society.

- Seminar and training (one-day) of handling and implementation of proficiency testing
- Seminar and training (one-day) of operating control charts
- Seminar and training of sensory (customised product sensory)

You will benefit of the extensive experience of the DRRR, because the DRRR go through the audit situation in a perspective of 360 ° as an auditor, as an audited person and as a neutral expert.

For special requirements we also offer customised training programmes.

For questions about contents and conditions do no hesitate to contact us.

### Terms of payment

Our prices are net prices (plus 19% value added tax). Customers from European countries can provide us with their EU-VAT-Identification number, then they will be exempt from German value added tax. Terms of payment: 8 days net, without deduction Fees for specially required customs documents such as import permits or similar will be invoiced according to time and effort.

Our bank details: Raiffeisenbank in Allgäuer Land / bank code 733 692 64 Account 102350 / IBAN DE 94733692640000102350 BIC code: GENO DEF1DTA Sales tax ID no. DE254613132 tax number 127/124/32207

### Terms of delivery

Shipping costs for reference materials and proficiency tests will be invoiced according to time and effort. All samples and packaging materials are the property of the DRRR. Samples that are used for nondestructive testing and are therefore not subject to destruction in the course of the proficiency test can be reclaimed by the DRRR upon request. The DRRR shall bear the shipping costs for the return transport if the materials are reclaimed.

Proficiency tests or reference materials marked "frozen" are shipped with our ADR safety tested frozen packaging system. A packaging fee is charged for the polystyrene box including cooling accumulators and air bubble film as well as the protective outer packaging. Frozen materials are shipped by express service. With the delivery of reference materials, you will receive a quality certificate with the details of the respective reference values as well as associated uncertainties.

### Terms of delivery (risk group 1, 2 and 3)

Proficiency tests or reference materials marked with "Risk Group 1" are not subject to any participation restrictions according to § 44 IfSG (Infektionsschutzgesetz).

For proficiency tests or reference materials marked with "risk group 2, or risk group 3<sup>\*\*</sup>", we need a permission from your laboratory according to § 44 IfSG (Infektionsschutzgesetz) or similar. Please enclose a copy of the permission with your registration or order.

Our general terms and conditions (Allgemeine Geschäftsbedingungen) are valid!

The German reference office for proficiency testing and reference materials GmbH (hereinafter referred to as DRRR) for freely agreed services, in particular testing, training and expert activities as well as reference materials.

### § 1 General terms and conditions

54

The client acknowledges the General Terms and Conditions and price lists valid at the time of placing the order. Deviating terms and conditions of individual clients cannot be accepted.

Collateral agreements, promises and other declarations by the employees of the DRRR are only binding if they are expressly confirmed in writing by the DRRR. This shall also apply to amendments to this clause. If individual regulations within this contract or its components are ineffective, this does not affect the validity of the remaining regulations. The contracting parties shall have a duty, acting in accordance with the principles of good faith, to replace any invalid provision by one which is valid and which produces the same economic outcome as that intended by the invalid provision and providing that such replacement does not result in any change to the content of the contract; the same shall also apply analogously to any matter which requires regulation but for which no provision is made in these Terms and Conditions.

#### § 2 Execution of the order

The orders accepted by the DRRR shall be carried out or expert opinions shall be prepared in accordance with the recognized rules of technology and – unless otherwise agreed in writing – in the manner customary at the DRRR. No responsibility shall be assumed for the correctness of the safety programs or safety regulations on which the tests are based, unless expressly agreed otherwise in writing.

The scope of the DRRR's work shall be specified in writing when the order is placed. If the proper execution of the order results in changes or extensions to the specified scope of the order, such changes or extensions shall be agreed in writing prior to execution. If the Customer can no longer be reasonably expected to adhere to the contract with regard to the changes or extensions, the Customer shall in this case be entitled to withdraw from the contract. However, according to § 649 BGB, the client must pay the agreed remuneration or, in the absence of an agreement, an appropriate remuneration.

The contractual services of the DRRR are deemed to have been rendered upon preparation of the respective final reports or expert reports.

A seminar registration can be cancelled free of charge for up to 6 weeks, after which the customer will be invoiced for the costs of the participants depending on the time and effort involved.

The following cancellation conditions apply to the cancellation of a proficiency testing:

Consolution notification pariod	Permanent registration (D)	
Cancelation notification period:	single (one-time) registration (E)	
up to 3 months before the proficiency testing	no costs (D)	
	50,00 € (E)	
3 months before the proficiency testing start	50,00 € (D)	
	half proficiency testing price (E)	
sample shipment – deadline of the results	complete price of the proficiency testing and any further incurred costs (D & E)	

#### § 3 Deadlines

The order deadlines specified by the DRRR shall not be binding unless their binding nature has been expressly agreed in written form.

55

General terms and conditions

### § 4 Warranty and liability

The integrity of the sample material to a defined condition is only guaranteed until the first border crossing in the case of foreign shipments.

Safety note: When sending materials of risk group 2, the DRRR must receive a letter from the recipient stating that the recipient is authorized to handle hazardous materials (e.g. pathogenic germs).

The DRRR's warranty only covers the services expressly commissioned to it pursuant to Section 2. No warranty is thereby assumed for the correctness and functioning of the relevant overall system, measuring instruments or materials to which the examined or tested samples belong; in particular, the DRRR bears no responsibility for packaging, material selection and construction of the examined systems, measuring instruments or assemblies, unless these issues are expressly the subject of the order.

Even in the latter case, the warranty obligation and legal responsibility of the manufacturer are neither limited nor assumed.

The warranty obligation of the DRRR is limited to the rectification of an error or defect or, in the absence of a warranted characteristic, to the achievement of this characteristic within a reasonable period of time. If the rectification or creation of the characteristic fails, i.e. if it becomes impossible or unreasonable for the Customer or is refused or unduly delayed by the DRRR, the Customer shall be entitled to demand a reduction in the remuneration or rescission of the contract, at its discretion.

The DRRR shall not be liable for any work performed by the Customer in the event of incorrect proficiency tests or reference materials.

The DRRR only assumes liability for certain properties, in particular for the fact that the service is suitable for the purposes of the Customer, if a corresponding assurance of the properties in question has been given. Any liability for consequential damages from positive breach of contract due to warranted characteristics is excluded, unless the warranty was intended to protect against such consequential damages. Claims for damages of the client from §§ 463, 635 BGB due to the lack of assured characteristics remain unaffected.

If an error or defect that does not represent the absence of a warranted characteristic is due to a circumstance for which the DRRR is responsible, the DRRR shall only be liable for any damage incurred by the Customer as a result thereof per order up to a maximum amount that corresponds to the value of the order agreed in accordance with Section 2.

The materials may only be used for the corresponding scientific purpose by trained qualified personnel. The DRRR is in no case responsible and liable for used, unused or unusable samples.

The samples are intended for analytical purposes only. The DRRR assumes no liability if the samples are not used for the intended analytical purposes.

All materials are definitely not suitable for human consumption unless they are sensory materials. Oral ingestion of materials not intended for sensory purposes can be harmful to health.

In the case of sensory materials, it is the responsibility of the test persons themselves to check whether they can test the materials with regard to allergies. The ingredients of the sensory materials are declared.

All samples and packaging materials are the property of the DRRR. Samples that are used for non-destructive testing and are therefore not subject to destruction in the course of the interlaboratory comparison can be reclaimed by the DRRR upon request. The DRRR will bear the shipping costs for the return transport, if the materials are reclaimed.

The analytical properties of the material can only be guaranteed if the transport, storage and use conditions specified by the DRRR are observed.

For frozen samples, the DRRR only guarantees that the samples will be treated in accordance with the material properties stated in the data sheet. For frozen samples delivered to countries outside the EU, we can only guarantee the sample properties up to the first customs clearance point at the respective EU border.

#### § 5 Exclusion of further liability and claims

The risk (transport and remuneration risk) shall pass to the Customer as soon as the goods have left the DRRR, regardless of whether the goods are transported by the Customer's own or third-party means of transport. Claims for damages by the client are excluded. This does not apply to intent, gross negligence, breach of essential contractual obligations of the DRRR or the lack of properties guaranteed in writing.

All further claims of the client for direct and indirect damage – for whatever legal reason – in particular claims for damages due to positive breach of contract or from tort and for compensation for damage that did not occur on the object of the order itself are excluded. Irrespective of this, the client is obliged to take out the usual insurance against direct and indirect damage.

General terms and conditions

### § 6 Remuneration and payment terms

Unless otherwise stated, the prices are in euros and do not include value added tax. This will be invoiced separately at the currently applicable rate in accordance with the applicable tax regulations. The goods remain the property of DRRR until they have been paid for in full by the customer.

The fees according to the DRRR's currently valid List of Services shall apply to the calculation of the services unless a fixed price or another basis of assessment has been expressly agreed in writing. In the absence of a valid specification of services, individual contractual arrangements shall be made in each case. Advances on costs can be requested. Partial invoices can also be issued in accordance with the services

Advances on costs can be requested. Partial invoices can also be issued in accordance with the services rendered. Partial invoices need not be marked as such. The receipt of an invoice does not mean that the DRRR has fully invoiced the order.

The fees are due for payment immediately after invoicing, at the latest by the date printed on the invoice (8 days net, without deduction). Unless another arrangement has been made. If payment is made at a later date, default interest of 2% above EURIBOR will be charged on the outstanding invoice amount for the period between the due date and receipt of payment.

Objections to the invoices of the DRRR must be notified in writing within a preclusive period of 14 days after receipt of the invoice, stating reasons.

#### § 7 Confidentiality and copyright

The DRRR reserves the copyrights to the expert opinions, test results, calculations, etc. prepared by it. The DRRR and its employees may not unauthorizedly disclose or exploit business and operating relationships that come to their knowledge in the course of their work.

The DRRR may take copies for its files of written documents that have been made available to the DRRR for inspection and that are of importance for the performance of the assignment.

If the proficiency test report and the laboratory code are sent by e-mail, no guarantee can be given that confidentiality will be ensured.

#### § 8 Place of jurisdiction, place of performance, applicable law

The place of jurisdiction for the assertion of claims for both parties to the contract is Kempten, provided that the conditions according to § 38 of the German Code of Civil Procedure are met. This applies in particular to dunning proceedings.

The place of performance for all obligations arising from the contract is Kempten, the contractor's registered office.

The contractual relationship and all legal relationships are subject exclusively to the law of the Federal Republic of Germany applicable between domestic contracting parties, excluding the Uniform Law on the Sale of Goods and the United Nations Convention on Contracts for the International Sale of Goods.

#### § 9 Guarantee of services and goods from cooperation partners

For reference materials sold on behalf of our cooperation partners, the following conditions apply with regard to liability and warranty:

The liability of our cooperation partners, their legal representatives and vicarious agents is limited to cases of intent, gross negligence, absence of a warranted characteristic and breach of an obligation, the non-compliance of which would endanger the purpose of the contract. The liability for proven damages due to grossly negligent conduct is limited to the amount of the contractual remuneration; no liability is assumed for consequential damages. Liability is limited to the use of the reference materials for the purposes described in the respective certificate.

Our cooperation partners guarantee the application of scientific diligence as well as compliance with the recognized rules of technology.

Our cooperation partners are entitled to rectify any defects that occur. If the rectification of defects fails, the client is entitled to demand a reduction of the remuneration or cancellation of the contract at his discretion. Further warranty claims are excluded.

The warranty is limited to the stated expiration date of the reference materials.

This applies to: ieLab, TGZ AQS Baden-Württemberg

### Responsible person:

name, surname
street
post code, city
fon
e-mail

Please tick as approprate and enclose the necessary documents:

Posession of a permission for working with pathogenic microorganisms if existing in your country?

- **O** yes (please enclose copy)
- O no

Posession of an exemption for working with pathogenic microorganisms if existing in your country?

- **O** yes (please enclose verification document)
- O no

Only for german customers the posession of a permission acc. to §44 3 IfSG (german infection protection law) or an exemption acc. §45 IfSG is obligatory.

- O yes (please enclose copy or verification document)
- O no

Because of the fact that this permission usually is person-linked, so please inform us immediately if there is a turnover of staff and send an updated version of the permission to DRRR GmbH.

date

signature



Deutsches Referenzbüro für Ringversuche und Referenzmaterialien

# Consumer goods and Packaging

# product catalogue 2024 / 2025



Image source: iStock.com/279photo chemical-physical

organoleptic

### In the fields:

Consumer goods / packaging in food contact such as:

- Films
- Paper and board
- Glass / canning / cans

Contamination from packaging

Consumer goods in body contact such as:

- Textiles
- Cosmetics
- Tattoo ink
- Jewellery

Other consumer goods such as:

- Printing inks
- Toys
- Cleaning agent
- Leather
- E-cigarettes

# Index

1

4

5

6

### general information

- The DRRR
  - News
- ODIN proficiency testing online
  - Proficiency testing organiation 7
  - Benefits of proficiency testing 8
    - Statistical methods 9
    - z'-score > 2: What to do? 10
      - proficiency testing 11

### **PROFICIENCY TESTING**

Consumer goods / packaging in	
food contact such as:	
Films	12
Paper / board	15

### **PROFICIENCY TESTING**

Contamination from packaging	15
Mineral oil in food stuff	15

### **PROFICIENCY TESTING**

Consumer goods in body contact	17
Textiles	18
Tattoo ink	20
Jewellery	20

Cosmetics 21

### reference material 33

### **REFERENCE MATERIAL**

Consumer goods / packaging in food contact such as:

Films 34

37

Paper / board 37

### **REFERENCE MATERIAL**

Contamination from packaging

Mineral oil in food stuff 37

### **REFERENCE MATERIAL**

Consumer goods in body contact 39

- Textiles 39
- Tattoo ink 41
- Jewellery 41
- Cosmetics 42

# Index

### **REFERENCE MATERIAL**

Other consumer goods	43
Printing inks	43
Toys	44
Cleaning agent	45
Metals	45
E-cigarettes	45

- Leather 46
- Kitchen Utensils and dishes 47
  - adhesive 47
    - rubber 47

### **REFERENCE MATERIAL**

- organoleptic 48
  - Films 48
- Paper / board 48

Other products / services 49

Order form 50

### **PROFICIENCY TESTING**

Other consumer goods	23
Printing inks	23
Toys	24
Cleaning agent	26
Metals	25
E-cigarettes	26
Leather	27
Kitchen Utensils and dishes	29
adhesive	29
rubber	30

### **PROFICIENCY TESTING**

organoleptic	31
Films	31
Paper / board	31

### Registration form 32

### additional information 51

	Quality management /	/ quality assurance	51
--	----------------------	---------------------	----

- Seminars / traning / consulting 52
  - Sales terms and delivery conditions 54
    - General terms and conditions 51

Deutsches Referenzbüro für Ringversuche und Referenzmaterialien GmbH (DRRR GmbH)

### **Proficiency testing provider**

The DRRR offers laboratories from the processing industry as well as official and private laboratories all aspects of quality assurance from one single source. Our focus is on food, consumer goods, packaging, building materials, plastics (polymers) and textiles, as well as microbiological analysis in these categories.

### Accreditation ISO/IEC 17043:2010 (A2LA)

The DRRR is an accredited proficiency testing provider by A2LA according to ISO/IEC 17043:2010. The accreditation is only valid for the matrices/parameters listed on the A2LA scope of accreditation certificate [#5494.01].

Whether a proficiency test is covered or not covered by the scope of accreditation by A2LA can be viewed in our online portal (ODIN).

### Accreditation DIN EN ISO/IEC 17043:2010 (DAkkS)

The DRRR is an accredited proficiency testing provider by DAkkS according to DIN EN ISO/IEC 17043:2010. The accreditation is valid only for the scope listed in the annex of the accreditation certificate [D-EP-17063-01-00].

Whether a proficiency test is covered or not covered by the scope of accreditation by DAkkS can be viewed in our online portal (ODIN).

#### **Reference material producer**

We offer many certified reference materials as well as advise on quality matters and quality assurance training in the laboratory and the production.

### **Customer support**

We provide advice to our customers in all question of validation of chemicalphysical, microbiological, organoleptic and physical-mechanical analysis or statistical questions. Peutsches Referenzbüro für Ringversuche und Referenzmaterialien

#### More than 500 PT's in 2023

### Accredited PT-provider

•



High-quality reference material

Any time competent contact persons

### Perfluorinated compounds (PFAS)

2024 the DRRR GmbH offers you a comprehensive proficiency testing program in the field of PFAS. These very stable and in the environment persistent chemicals are used in many different areas. They have immunosuppressive effects on humans and some of these substances can act as endocrine disruptors and are carcinogenic. Therefore, EFSA has set a toxicological threshold of 0.0044  $\mu$ g/kg bw per week for the 4 main PFAS representatives in 2020 for food. More recently, the EU has introduced maximum levels for PFAS for the first time (EU 2022/2388) and guidance values (EU 2022/1431) for different food groups. In addition, the topic has been strongly covered by the media and has reached the awareness of the public.

We offer proficiency tests in all relevant matrix groups: Drinking Water, Feed, Fish and Seafood, Infant Food, Environment, Egg Products, Textiles, Leather and Paper / Cardboard. The PFAS concentrations are adapted to the matrix (ng/kg, µg/kg, mg/kg) and the following PFAS are requested: CAS 1763-23-1 (perfluorooctanesulfonic acid), CAS 335-67-1 (perfluorooctanoic acid), CAS 375-95-1 (perfluorononanoic acid), CAS 355-46-4 (perfluorohexanesulfonic acid).

### plastic - screening of SVHC and plastic - screening of NIAS

The two new PTs allow you to validate your screening procedure for substances of very high concern (SVHC) and for unintentionally added substances (NIAS) via a proficiency test. The test samples should first be examined qualitatively using a screening method. Positive results can be determined quantitatively.

### Matrix Rubber - Total migration and specific migration

The five new PTs on migration from natural and synthetic rubbers cover important parameters of Resolution ResAP (2004) 4 (1) issued by the European Council and the BfR recommendation XXI/1 (2). Both, total migration under different contact conditions and specific migration of metals and a common antioxidant are part of the new DRRR PT program.

(1) ResAP (2004) 4: Rubber products intended to come into contact with foodstuffs (version 1; 10.06.2004)
(2) BfR: Recommendation XXI/1. Commodities based on natural and synthetic rubber in contact with food. (version 01.02.2023)

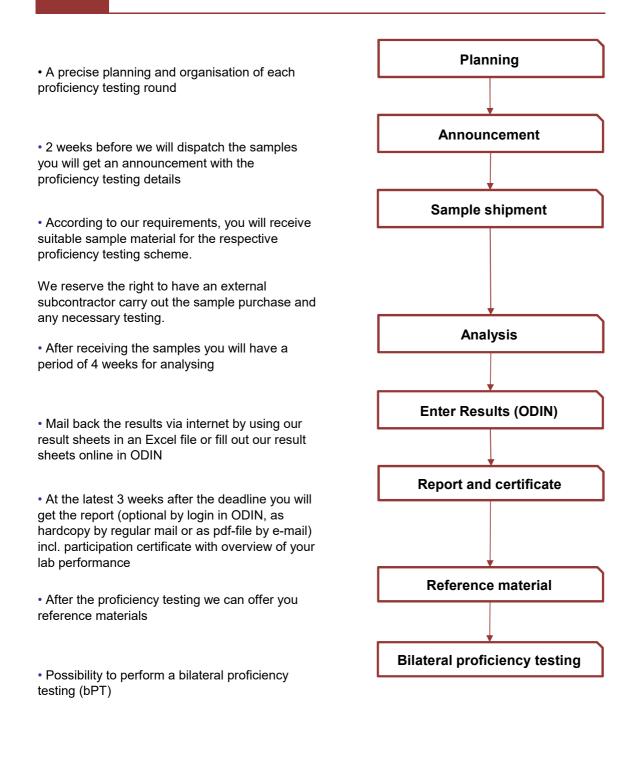
Simply brilliant, your proficiency testing with ODIN (Online Data Information Network).	€
<ul> <li>Fast and easy online registration / online announcement in our online catalogue</li> </ul>	Book Ringtrials Online
<ul> <li>Direct management and booking of the proficiency testing</li> </ul>	
<ul> <li>Overview about the registered proficiency testing schemes</li> </ul>	Proficiency testing catalog
<ul> <li>Fast and secure submission of your results via ODIN</li> </ul>	
<ul> <li>Online access to individual customers reports and certificates</li> </ul>	Enter Results Online
<ul> <li>Supervisor rights available to overview all PTs of a multi-site company</li> </ul>	Booked proficiency testings
• Saving of costs through booking and submission of your results via ODIN	
Secure payment with IRIS (Internet Remuneration Information Service).	Download Reports and Certificates
<ul> <li>Easy and safe payment by credit card</li> </ul>	Booked proficiency testings
Overview about all invoices	

You can also pay your invoice via banktransfer

or bank check.

• Fast and secure online access

# **Proficiency testing organisation**



#### Why take part in proficiency testing?

• Participation in proficiency testing schemes is required by international standards or national facilities, organizations and customers

• Participants can compare, assure and improve their own performance and quality against other laboratories worldwide

• Laboratories can recognize how well they have been completed with the applied method compared to the other laboratories

- · Saving on the costs of testing
- Unquestionable lab performance towards customers, authorities and certification authorities
- Saving on the costs of lab development and maintenance
- Saving on the costs of lab development and maintenance
- Saving on production costs by avoiding waste of raw material

# Your benefits in DRRR proficiency testing schemes

• Objective and independent impression of your quality and your performance of your routine testing method compared to the other participating laboratories

• Saving the costs, because you have the opportunity to analzye more samples and more parameters in one proficiency testing

• External demonstration of your performance with the results of the proficiency testing

• Build up of your own external quality assurance system with our statistical tools (contains statistical control charts, MS-Excel evaluation files and reference materials). With these tools incorporated your external quality assurance rays unmatched confidence

• Detailed planning and organization of your proficiency testing and an easier, faster and better communication with us



Image source: iStock.com/3dts

#### We work according to:

- ISO Guide 31 / 35
- DIN EN ISO 17034
- DIN EN ISO/IEC 17020 / 17025 / 17043
- ISO 13528

#### Laboratory performance:

by calculation of the following paramters:

- z-score
- z'-score
- CRD-Wert

#### Statistical models:

Depending on the type of the distribution of the data, different statistic models are used:

- Conventional statistics (all values)
- · Conventional statistics (no outliers)
- Robust statistics (Hampel estimator, Q-method)
- Robust statistics (Median, MAD/nIQR)
- Expert laboratory (expert decision)

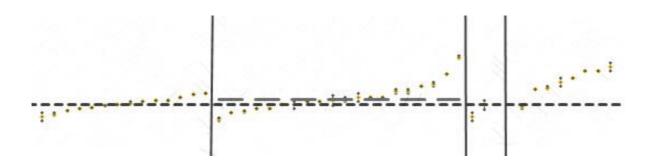
Homogenous and stable sample material

Calculation of precision data acc. to ISO 5725-2 in many proficiency testing schemes

Selection of statistical method with the chi<sup>2</sup>-fit test

Method-specific evaluation according to the reference method (if available)

Additional extended method evaluation (in case data are available)



# You are not satisfied with your laboratory performance: What can you do?

Due to your showed laboratory performance you have been asked by the accreditation body, the monitoring authority or your customer to initiate measures to improve your laboratory performance.

These measures are often connected with considerable efforts in the laboratory and you only have a short time frame. In many cases the proof of a successful measure processing, by participation in a new proficiency testing round, is only possible in the following year. Until now it does not exist a possibility for a spontaneous performance review to equalize a previous unsatisfactory proficiency testing result.

# New: The bilateral proficiency testing (bPT)!

You can book and perform individually and flexibly the bilateral proficiency testing during a determined time period.

You receive a proficiency testing sample for analyzing. You submit the results of the testing. After that you will get your proof of performance as a z'-score calculation in the form of a certificate within 1 - 2 weeks.

The performance evaluation refers to the previous regular proficiency testing, so that you can connect the bPT to the regular proficiency testing round. The used sample material is derived from a previous proficiency testing round and provides the possibility of a comparable performance evaluation with the regular proficiency testing.

#### Your terms and conditions:

Participation in a bPT is open to all laboratories. Prior participation in our regular proficiency tests is not necessary.

The report of this proficiency testing is not older than ten weeks. You register within these ten weeks for the bPT and the performance is confirmed by the DRRR. The testing period is dependent on the technical factors (parameter, matrix etc.) and will be agreed individually\*. When this time is over after the sample shipment and you do not have sent us your results in this time, we can not evaluate your results and issue a certificate for you.

(\* normally not longer than 1 - 2 weeks) The bPT is not in the scope of accreditation of the DRRR. The realization of the bPT depends on the availability of the material.

#### Costs bPT

The costs are identical to the costs of the respective proficiency test from our standard program (see ODIN) plus shipping costs.

Alternative you can also order reference material.

#### **Features**

The inspectors of the DRRR-team are represent in different national and international committees and working groups. Thus we ensure that the DRRR quality assurance systems are available for new and up-to-date questions in all cases, if the laboratories start to establish the routine method. Due to the intensive professional exchange in the committees, it is ensured that the proficiency testing design is conformed to the new developments and the laboratories have the highest possible benefits in a participation in the proficiency testing. national and international committees and working groups

#### Testing with matrix reference

Whenever possible, real matrices e.g. films, textiles, cardboard and cosmetics are used. This ensures that our proficiency testing schemes have an actual matrix reference and the sample preparation is part of the proficiency testing.

#### Matrix reference

#### **Statistical evaluation**

Take advantage of our statistical evaluation system. The evaluation of the proficiency testing is based on the highest scientific and statistical level. Therefore the participating laboratories have a very precise feedback on their actual performance.

#### **Laboratory Measurement**

By using our market-leading statistical evaluation, additional information such as laboratory uncertainty and various scattering of each laboraotires can be presented. Evaluation

Market-leading statistical evaluation

For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (<u>www.DRRR.de</u>). You can also use the registration forms on page 32 of this catalogue.

### films

12

Art. No.	proficiency testing type <sup>[A]</sup>	requested parameters	period	To view pricing information visit our online Portal:
2010073	Plastic - overall migration (one-sided contact) (EN 1186-3)	overall migration in food simulating matrix: ethanol 10%; 20%; 50%, acetic acid 3%, distilled water, vegetable oil	Oct-24	Login or register
2010304	Plastic - overall migration (total immersion) (EN 1186- 3)	overall migration in food simulating matrix: ethanol 10%; 20%; 50%, acetic acid 3%, distilled water, vegetable oil	Nov-24	
2010570	Plastic - overall migration (article filling) (EN 1186-3)	overall migration in food simulating matrix: ethanol 10%; 20%; 50%, acetic acid 3%	Jul-24	
2010572	Plastic - overall migration (fatty test food, total	overall migration in food simulating matrix:	Mar-24	
2010012	immersion) (EN 1186-3)	ISO-octane, ethanol 95%	Mar-25	
2010574	Plastic - overall migration at high temperatures (EN 1186-	overall migration in food simulating matrix:	Mar-24	
2010374	13)	olive oil	Mar-25	
	Plastic, silicone - overall	overall migration by using Tenax (MPPO)	Jan-24	
2010622	migration using MPPO	as a simulant	Jan-25	
2010311	Plastic - overall migration (pouch) EN 1186-3, EN 1186- 2	overall migration in simulants: ethanol 10%, 20%, 50%, acetic acid 3% and vegetable oil	Sep-24	
2011003	Plastic - overall migration (fatty test food, one-sided contact) (EN 1186-3)	Food simulants: ISO octane, 95% ethanol	Oct-24	
2010075	Plastic - Specific migration: caprolactam	specific migration of caprolactam in food simulating matrix: ethanol 10%; 20%; 50%, acetic acid 3%, distilled water, vegetable oil	Dec-24	
2010306	Plastic - Specific migration: 1- octene	specific migration of 1-octen in food simulating matrix: ethanol 50%, 95% ,vegetable oil	May-24	
2010308	Plastic - Specific migration: acrylonitrile (EN 13130-3)	food simulating matrices: ethanol 10%, acetic acid 3%, distilled water, vegetable oil	Aug-24	
2010310	Plastic - Specific migration: terephthalic acid	specific migration of terephthalic acid in food simulating matrix: Ethanol 10%; 50%, acetic acid 3%, distilled water, vegetable oil	Aug-24	
2010628	Plastic - Specific migration: melamine	specific migration of melamin in food simulating matrix: ethanol 10%, acetic acid 3%, distilled water, vegetable oil	Aug-24	
2010620	Plastic - Specific migration:	specific migration of vinyl acetate in food simulating matrix:	Mar-24	
2010630	vinyl acetate	ethanol 10%, acetic acid 3%, distilled water, olive oil	Mar-25	

For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (<u>www.DRRR.de</u>). You can also use the registration forms on page 32 of this catalogue.

## films

13

Art. No.	proficiency testing type <sup>[A]</sup>	requested parameters	period	To view pricing information visit our online Portal:
2010251	Plastic - Specific migration: acrylonitrile trimers	acrylonitrile trimers	Aug-24	Login or register
2010401	Plastic - Specific migration: primary aromatic amines 1	CAS 95-53-4 (o-toluidine), CAS 92-87-5 (benzidine), CAS 62-53-3 (aniline) and CAS 91-94-1 (3,3'-dichlorobenzidine) in simulant distilled water, 3% acetic acid, CAS 101-77- 9 (4,4'-Methylenedianiline)	May-24	
2010403	Plastic - Specific migration: primary aromatic amines 2	CAS 90-04-0 (2-methoxyaniline), CAS 106- 47-8 (4-chloroaniline), CAS 91-59-8 (2- napthylamine) and CAS 119-93-7 (3,3'- dimethylbenzidine) in simulant 10% ethanol and 15% ethanol	May-24	
2010464	Plastic - Specific migration: metals part 1	specific migration of antimony, arsenic, cadmium in simulant acetic acid 3%, water	Okt. 24	
2010466	Plastic - Specific migration: metals part 2	specific migration of total chromium, lead, iron in simulant acetic acid 3%, water	Okt. 24	
2010115	Plastic - Identification of mono-layer plastic films	qualitative identification of mono films	Sep-24	
2010167	Plastic - Identification of different PA types	e.g. PA6, PA6.6, PA11, PA12	Mar-24 Mar-25	
2010210	Plastic - Identification of	qualitative determination of plastic	Mar-24	
2010210	granulate	granules	Mar-25	
2010312	Plastic - Identification of of multi-layer plastic films	qualitative identification of multi-layer films	Mar-24 Mar-25	
2010963	plastic - Identification of microplastic	qualitative determination of microplastics in water	Mar-24 Mar-25	
2010965	Plastic - Elemental determination by XRF	arsenic, total bromine, cadmium, total chromium, mercury, lead, sulfur, antimony, tin, zinc	Sep-24	
2010220	Ethylene glycol in food simulants (EN 13130-7)	ethylene glycol in food simulating matrix: ethanol 10%; 20%; 50%, acetic acid 3%, distilled water, vegetable oil	Jun-24	
2010222	Di-ethylene glycol in food simulants (EN 13130-7)	di-ethylene glycol in food simulating matrix: ethanol 10%; 20%; 50%, acetic acid 3%, distilled water, vegetable oil	Jun-24	
2010578	Bisphenol A in food simulants (CEN TS 13130- 13)	testing of Bisphenol A in food simulating matrix: distilled water, acetic acid 3%, ethanol 10%	Sep-24	
2010580	Formaldehyde in food simulants (CEN TS 13130- 23)	testing of formaldehyde in food simulating matrix: distilled water, acetic acid 3%, ethanol 10%, vegetable oil	Aug-24	

For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (<u>www.DRRR.de</u>). You can also use the registration forms on page 32 of this catalogue.

## films

Art. No.	proficiency testing type <sup>[A]</sup>	requested parameters	period	To view pricing information visit our online Portal:
2010632	Acrylamide in food simulants (CEN TS 13130-10)	testing of acrylamide in food simulating matrix: ethanol 10%, acetic acid 3%, distilled water, olive oil	Jun-24	Login or register
2011101	Ethylenediamine in food simulants (CEN TS 13130- 21)	ethanol 10 %, distilled water, acetid acid 3 %	Oct-24	
2011102	Hexamethylenediamine in food simulants (CEN TS 13130-21)	ethanol 10 %, distilled water, acetid acid 3 %	Oct-24	
2010322	Plastic - overall migrat on synthetic samples	determination of overall migrat in simulating matrix: ethanol 10%; 20%; 50%, acetic acid 3%, distilled water	Jul-24	
2010582	Plastic - phthalate content	DBP, BBP, DEHP, DNOP, DINP, DIDP, DEP, DMP	Oct-24	
2010584	Plastic - Vinylchloride in synthetic sample (ISO 6401)	vinyl chloride monomer	Oct-24	
2010634	acetaldehyde in mineral water	acetaldehyde	Jul-24	
2010636		CAS 80-05-7 Bisphenol A	Apr-24	
2010638	Plastic - 1,3 butadiene content (EN 13130-4)	1,3 butadiene monomer	May-24	
2010307	Plastic - styrol oligomers in synthetic samples	CAS 1081-75-0 (1,3-Diphenylpropane), CAS 16606-47-6 (2,4-Diphenyl-1-butene), CAS 20071-09-4 (trans-1,2- Diphenylcyclobutane), CAS 18964-53-9 (2,4,6-Triphenyl-1-hexene) and CAS 26681- 79-8 (1-Phenyl-4-(1-phenylethyl)-1,2,3,4- tetrahydronaphthalene)	Dec-24	
2010405	Plastic - PAH content	CAS 91-20-3 (naphthalene), CAS 120-12-7 (anthracene), CAS 56-55-3 (benzo(a)anthracene), CAS 218-01-9 (chrysene), CAS 205-99-2 (benzo(b)fluoranthene), CAS 207-08-9 (benzo(k)fluoranthene), CAS 205-82-3 (benzo(j)fluoranthene), CAS 192-97-2 (benzo(e)pyrene), CAS 50-70-3 (benzo(a)pyrene), CAS 53-70-3 (dibenz(ah)anthracene) (at least 5 of the parameters quantitative)	May-24	
2011015	Plastic, silicone - volatile fractions	gravimetric determination of the volatile fractions	Jun-24	
2011151	plastic - screening of SVHC	screening of substances of very high concern (SVHC) quanitative and quantitative	May-24	
2011152	plastic - screening of NIAS	screening of non-intentionally added substances (NIAS) quanitative and quantitative	Jul-24	
2011153	plastic - melamine content	melamine	Dec-24	

## paper / board

15

Art. No.	proficiency testing type <sup>[A]</sup>	requested parameters	period	To view pricing information visit our online Portal:
2010318	mineral oil in cardboard	MOSH C10-C16, MOSH C16-C20, MOSH C20-C25, MOSH C25-C35, MOAH C10-C16, MOAH C16-C25, MOAH C25-C35	Nov-24	Login or register
2010180	mineral oil in low-fat and starch-rich foodstuff	MOSH C10-C16, MOSH C16-C20, MOSH C20-C25, MOSH C25-C35, MOSH C35-C40, MOSH C40-C50, MOAH C10-C16, MOAH C16-C25, MOAH C25-C35, MOAH C35-C50, MOSH C10-C50; MOAH C10-C50	May-24	
2010590	mineral oil in cocoa butter and chocolate	MOSH C10-C16, MOSH C16-C20, MOSH C20-C25, MOSH C25-C35, MOSH C35-C40, MOSH C40-C50, MOAH C10-C16, MOAH C16-C25, MOAH C25-C35, MOAH C35-C50, MOSH C10-C50; MOAH C10-C50	Jul-24	
2010245	mineral oil in cheese and milk powder	MOSH C10-C16, MOSH C16-C20, MOSH C20-C25, MOSH C25-C35, MOSH C35-C40, MOSH C40-C50, MOAH C10-C16, MOAH C16-C25, MOAH C25-C35, MOAH C35-C50, MOSH C10-C50; MOAH C10-C50	Jul-24	
2010320	mineral oil in edible fat and edible oil	MOSH C10-C16, MOSH C16-C20, MOSH C20-C25, MOSH C25-C35, MOSH C35-C40, MOSH C40-C50, MOAH C10-C16, MOAH C16-C25, MOAH C25-C35, MOAH C35-C50, MOSH C10-C50; MOAH C10-C50	Aug-24	
2011135	mineral oil in edible fat and edible oil (round 2)	MOSH C10-C16, MOSH C16-C20, MOSH C20-C25, MOSH C25-C35, MOSH C35-C40, MOSH C40-C50, MOAH C10-C16, MOAH C16-C25, MOAH C25-C35, MOAH C35-C50, MOSH C10-C50; MOAH C10-C50	Dec-24	
2010586	migration of mineral oil from	Migration of mineral oil in food simulating	Mar-24	
	cardboard	matrix: Tenax	Mar-25	
2010935	Mineral oil in jute bags	MOSH C10-C16, MOSH C16-C20, MOSH C20-C25, MOSH C25-C35, MOSH C35-C40, MOSH C40-C50, MOAH C10-C16, MOAH C16-C25, MOAH C25-C35, MOAH C35-C50	Aug-24	
2010620	Migration from paper, board using MPPO (EN 14338)	overall migration by using Tenax (MPPO) as a simulant	Nov-24	
2010640	paper, board: pH value (ISO 6588-1, ISO 6588-2)	pH value (cold extraction und hot extraction)	Nov-24	
2010642	Paper, cardboard - formaldehyde (EN 1541)	formaldehyde (cold water extract)	Jun-24	
2010644	Paper, cardboard - glyoxal	glyoxal (cold water extract)	May-24	
2010646	Colour fastness of dyed paper (EN 646)	testing with distilled water, acetic acid 3%, olive oil, alkali salt solution	May-24	
2010648	Colour fastness of fluorescent whitened paper (EN 648)	testing with distilled water, acetic acid 3%, olive oil, alkali salt solution	May-24	
2010442	Paper, cardboard - overall migration	overall migration in simulant ethanol 95%	Apr-24	

## paper / board

16

Art. No.	proficiency testing type <sup>[A]</sup>	requested parameters	period	To view pricing information visit our online Portal:
2010448	testing of benzophenone in food simulating matrix	Benzophenon in the simulant ethanol 95%	Apr-24	Login or register
2010711	Paper, cardboard - constituents (gravimetric)	dry content, residue on ignition, ash	May-24	
2010450	Paper, cardboard - DIPN (EN 14719)	DIPN (Diisopropylnaphthalin)	May-24	
2010452	Paper, cardboard - 1,3-DCP and 3-MCPD	testing with aqueous extract: 1,3-dichloro- 2-propanol, 3-monochloro-1,2-propanediol	Jun-24	
2010454	Paper, cardboard - PCBs (ISO 15318)	PCB 52, PCB 101, PCB 138	Sep-24	
2010456	Paper, cardboard - cadmium, lead in aqueous extract (EN 12498)	cadmium, lead	Jul-24	
2010460	Paper, cardboard - bisphenol S	Bisphenol S	Aug-24	
2011011	Paper, cardboard - total chlorine and organically bound chlorine (ISO 11480)	total chlorine, organically bound chlorine	Jul-24	
2011023	Pulps - Kappa number (ISO 302)	Kappa number	Jun-24	
2011024	ISO 2528	Sheet materials - Water vapour transmission rate	Oct-24	
2011025	ISO 535	Paper and board - Water absorptiveness (Cobb)	Oct-24	
2011026	ISO 5636-3	Paper and board - Air permeance (Bendtsen)	Oct-24	
2011027	ISO 5636-5	Paper and board - Air permeance (Gurley)	Oct-24	
2011028	ISO 536	Paper and board - Grammage	Oct-24	
2011029	ISO 534	Paper and board - Thickness, density, specific volume	Oct-24	
2011030	ISO 12625-3	Tissue products - Thickness	Oct-24	
2011031	ISO 12625-8	Tissue products - Water-absorption capacity	Oct-24	
2011032	ISO 12625-6	Tissue products - Grammage	Oct-24	
2011099	Paper, cardboard - aluminium	aluminium (cold water extract)	Aug-24	

## paper / board

17

Art. No.	proficiency testing type <sup>[A]</sup>	requested parameters	period	To view pricing information visit our online Portal:
2011147	Paper, board - Primary aromatic amines (EN 17163)	testing with aqueous extract: CAS 95-53-4 (o-Toluidin), CAS 92-87-5 (Benzidin), CAS 62-53-3 (Anilin), CAS 91-94-1 (3,3'- Dichlorbenzidin); CAS 90-04-0 (2- Methoxyanilin), CAS 106-47-8 (4- Chloranilin), CAS 91-59-8 (2-Napthylamin); CAS 119-93-7 (3,3'-Dimethylbenzidin)	Sep-24	<u>Login or register</u>
2011148	paper, board - phthalates (EN 16453)	testing with aqueous extract: CAS 28553- 12-0 (DINP), CAS 117-81-7 (DEHP), CAS 117- 84-0 (DNOP), CAS 26761-40-0 (DIDP), CAS 85-68-7 (BBP), CAS 84-74-2 (DBP), CAS 84- 69-5 (DIBP), CAS 131-18-0 (DPP), CAS 71888-89-6 (DIHP), CAS 117-82-8 (DMEP)	Jun-24	
2011149	paper, board - mercury in aqueous extract (EN 12497)	mercury (Hg)	Nov-24	
2011150	MOAH - quantification acc. number of aromatic rings	MOAH quantitative by rings: 1 R, 2 R, 3 R, 4 R, 5 R, 6 R, 7 R; matrix: edible fat	Sep-24	

[A] = For accredited and non-accredited status please see Online portal (ODIN)

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### textiles

18

Art. No.	proficiency testing type <sup>[A]</sup>	requested parameters	period	To view pricing information visit our online Portal:
2010324	Textiles - extractable metals (EN 16711-2)	antimony, arsenic, lead, cadmium, chromium, cobalt, copper, nickel, barium, manganese, selenium, zinc	Jul-24	Login or register
2010185	Textiles - formaldehyde (ISO 14184-1)	free and hydrolised formaldehyde	May-24	
2010326	Textiles – Phosphorus flame retardants (ISO 17881-2)	tributyl phosphate (CAS No 126-73-8), o- triskresyl phosphate (CAS No 78-30-8), tris(2-chloroethyl)-phosphate (CAS No 115- 96-8), tris(2-chloro-1-methylethyl)- phosphate (CAS No 13674-84-5)	Dec-24	
2010328	Textiles - Aromatic amines from azo dyes (ISO 14362-1)	Quantitative determination of aromatic amines derived from azo dyes acc. ISO 14362-1 (at least 3)	Nov-24	
2010224	Textiles - aniline	CAS 62-53-3 (aniline)	May-24	
2010225	Textiles - 2,4-xylidine and 2,6 xylidine	CAS 95-68-1 (2,4-xylidine), CAS 87-62-7 (2,6- xylidine)	May-24	
2010226	Textiles – Alkylphenols, ethoxylates (ISO 21084)	CAS 68412-54-5 (nonylphenol ethoxylate), CAS 9002-93-1 (octylphenol ethoxylate), CAS 84852–15–3 4-(nonylphenol isomer mixture), CAS 140–66–9 (4-tert- octylphenol)	Nov-24	
2010227	Textiles – chlorophenoles	Tetrachlorophenol-, trichlorophenol-, dichlorophenol-, monochlorophenol- isomers and CAS 87-86-5 (pentachlorophenol)	Nov-24	
2010173	Textiles – organotin compounds (ISO 22744-1; 22744-2)	CAS 1118-46-3 (monobutyltin trichloride), CAS 3091-25-6 (trichlorooctylstannane), CAS 683-18-1 (dibutyltin dichloride), CAS 3542-36-7 (dioctyltin dichloride), CAS 1461- 22-9 (tributyltin chloride), CAS 639-58-7 (triphenyltin chloride), CAS 3091-32-5 (tricyclohexyltin chloride), CAS 1461-25-2 (tetra-n-butyltin)	Oct-24	
2010175	Textiles - perfluorinated compounds	CAS 1763-23-1 (perfluorooctane sulfonic acid), CAS 335-67-1 (perfluorooctanoic acid), CAS 375-95-1 (perfluorononanoic acid), CAS 355-46-4 (perfluorohexane sulfonic acid)	Oct-24	
2010179	Textiles - metal content (EN 16711-1)	chromium, nickel, cadmium, lead, copper, arsenic	Sep-24	

Proficiency Testing for mechanical textile testing can be found in the catalogue "material testing" or the online catalogue: e. g. fabric properties, functional properties, colour fastness, determination of fibre blends, laminated fabrics, personal protective equipment (PPE)

### textiles

Art. No.	proficiency testing type <sup>[A]</sup>	requested parameters	period	To view pricing information visit our online Portal:
2010181	Textiles - phthalate content (ISO 14389)	CAS 28553-12-0 (DINP), CAS 117-81-7 (DEHP), CAS 117-84-0 (DNOP), CAS 26761- 40-0 (DIDP), CAS 85-68-7 (BBP), CAS 84-74- 2 (DBP), CAS 84-69-5 (DIBP), CAS 131-18-0 (DPP), CAS 71888-89-6 (DIHP), CAS 117-82- 8 (DMEP)	Aug-24	<u>Login or register</u>
2010527	Textiles - PAH (EN 17132)	CAS 91-20-3 (naphthalene), CAS 120-12-7 (anthracene), CAS 56-55-3 (benzo(a)anthracene), CAS 218-01-9 (chrysene), CAS 205-99-2 (benzo(b)fluoranthen), CAS 207-08-9 (benzo(k)fluoranthen), CAS 205-82-3 (benzo(j)fluoranthen), CAS 50-70-3 (benzo(a)pyren), CAS 50-70-3 (benzo(a)pyren), CAS 53-70-3 (dibenz(ah)anthracene) (minimum 5 of the parameters quantitative) A PAH concentration in the samples of approximately 0,1-10 mg/kg per PAH is to be expected.	Aug-24	
2010430	Textiles - lead release (saliva simulant, EN 16711-3)	lead	May-24	
2011013	Textiles - extractable dyestuffs (ISO 16373-2)	Detection of at least 3 extractable dyestuffs	Jun-24	
2011017	Textiles - chlorobenzenes and chlorotoluenes (EN 17137)	At least 4 different substances quantitatively	May-24	
2010177	Textiles - pesticides	This is a multi-residue proficiency testing. For the proficiency testing schemes on pesticides/ pesticide residues, a pre- selection of pesticides has been made according to relevance: viewable in the list of analytes published by the DRRR in Annex 1. From this list, a selection of pesticides will be available for identification and quantification in the proficiency testing.	Sep-24	
2011144	textiles - rPET share	quantitative determination of the proportion of recycled PET (%)	Jul-24	

Proficiency Testing for mechanical textile testing can be found in the catalogue "material testing" or the online catalogue: e. g. fabric properties, functional properties, colour fastness, determination of fibre blends, laminated fabrics, personal protective equipment (PPE)

[A] = For accredited and non-accredited status please see Online portal (ODIN)

### tattoo ink

20

Art. No.	proficiency testing type <sup>[A]</sup>	requested parameters	period	To view pricing information visit our online Portal:
2010338	Tattoo ink - preservatives	benzisothiazolinone (BIT)	Dec-24	Login or register
2010340	Lattoo ink - aromatic amines	aniline, o-Anisidine, o-toluidine, 5-nitro-o- toluidine	Dec-24	
2010560		tin, zinc, nickel, strontium, antimony, barium, cadmium, cobalt, lead (minimum 4 of the parameters quantitative)	Apr-24	

## jewellery

Art. No.	proficiency testing type <sup>[A]</sup>	requested parameters	period	
2010568	jewellery (acc. to EN 1811)	testing for nickel release	Jul-24	
2010969	Lead and cadmium in jewelry	Lead, cadmium	Oct-24	

Art. No.	proficiency testing type <sup>[A]</sup>	requested parameters	period	To view pricing information visit our online Portal:
2010206	care products	methylparaben, ethylparaben, propylparaben, n-butylparaben, phenoxyethanol, benzoic acid, sorbic acid, methylisothiazolinone, isobutylparaben	Oct-24	Login or register
3010015	shampoo, lotion	fat, density, pH-value, dry residue, water content, urea	Aug-24	
2010201	cream, lotion	dexpanthenol, tocopherolacetat, retinolpalmitate	Sep-24	
3010017	Determination of the total fluoride content in dental care	fluoride	Oct-24	
2010332	Cosmetics - metals	aluminium, copper, zinc	Apr-24	
2010700	Cosmetics - heavy metals (ISO 21392)	lead, arsenic, antimony, nickel, cobalt, zinc, cadmium	Oct-24	
2010334	Cosmetics - UV filters	EHS, BMDM, EHT, PBSA, OC, titanium dioxide	May-24	
2010336	Cosmetics - PAHs	naphthalene, anthracene, benzo(a)anthracene, chrysene, benzo(b)fluoranthen, benzo(k)fluoranthen, benzo(j)fluoranthen, benzo(e)pyren, benzo(a)pyren, dibenz(ah)anthracene (minimum 3 of the parameters quantitative) A PAH concentration in the samples of approximately 0,5-50 mg/kg per PAH is to be expected.	Jul-24	
2010556	tensides in cosmetics	Sodium Laureth Sulfate, Cocamidopropyl	Feb-24	
		betaine (CAPB), Coco-glucoside	Feb-25	
2010558	Cosmetics - mineral oil	MOSH C10 - C50, MOAH C10 - C50	Mar-24 Mar-25	
2010650	Cosmetics - ant-dandruff products	pirocton-olamine, zinc pyrithione	Mar-24 Mar-25	

### cosmetics

[A] = For accredited and non-accredited status please see Online portal (ODIN)

Art. No.	proficiency testing type <sup>[A]</sup>	requested parameters	period	To view pricing information visit our online Portal:
2010652	Cosmetics - solvents	ethanol, isopropyl alcohol, acetone, propylene glycol	Aug-24	Login or register
2010329	perfume, body spray	flash point	Aug-24	
2010397	Self-tanner	dihydroxyacetone, formaldehyde	Apr-24	
2010399	Sunscreen - UVA photoprotection (in vitro, ISO 24443)	UVA photoprotection	Apr-24	
2011022	Cosmetics - rheology (ISO 3219)	viscosity	Jun-24	
2011100	Cosmetics - 3-lodoprop-2-yn- 1-yl butylcarbamate (IPBC)	3-lodoprop-2-yn-1-yl butylcarbamate (IPBC)	Sep-24	
2011129	Cosmetics - AOX	ΑΟΧ	Oct-24	
2011141	Cosmetic products – pesticides	This is a multi-residue proficiency testing. For the proficiency testing schemes on pesticides/ pesticide residues, a pre- selection of pesticides has been made according to relevance: viewable in the list of analytes published by the DRRR in Annex 1. From this list, a selection of pesticides will be available for identification and quantification in the proficiency testing.	Nov-24	
2011158	Cosmetic products - Fragrances	Qualitative and quantitative detection of fragrances	Oct-24	

#### cosmetics

22

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Art. No.	proficiency testing type <sup>[A]</sup>	requested parameters	period	To view pricing information visit our online Portal:
2010314	migration of printing ink constituents quant. determination of monomers and initiators -round 1-	CAS 94108-97-1: Di(tri-methylolpropan)tetraacrylat (Di- TMPTA), CAS 57472-68-1: Dipropylene glycol diacrylate (DPGDA), CAS 119313-12-1: 1-Butanone,2-(dimethylamino)-1-(4-(4- morpholinyl)phenyl)-2-(phenylmethyl)- CAS 84434-11-7: 2,4,6-trimethylbenzoylphenyl phosphinate food simulating matrices: 50% ethanol, 95% ethanol	Jul-24	<u>Login or register</u>
2010316	migration of printing ink constituents quant. determination of monomers	CAS 42978-66-5: Tri(propylene glycol)diacrylate (TPGDA), CAS 15625-89-5: Tri(methylolpropan)triacrylate (TMPTA), CAS 272460-97-6: 1-Propanone,1-[4-[(4- benzoylphenyl)thio]phenyl]-2-methyl-2-[(4- methylphenyl)sulfonyl]-,	Mar-24	
	and initiators -round 2-	CAS 162881-26-7: Bis(2,4,6-trimethylbenzoyl)- phenylphosphineoxide food simulating matrices: 50% ethanol, 95% ethanol	Mar-25	
2010193	printing ink constituents in synthetic samples - monomers -round 3-	CAS 94108-97-1: Di(tri-methylolpropan)tetraacrylat (Di- TMPTA), CAS 57472-68-1: Dipropylene glycol diacrylate (DPGDA), CAS 42978-66-5: Tri(propylene glycol)diacrylate (TPGDA), CAS 15625-89-5: Tri(methylolpropan)triacrylate (TMPTA)	Sep-24	
3010019	printing ink constituents in synthetic samples - initiators -round 4-	CAS 119344-86-4: 2-dimethylamino-2-(4- methyl-benzyl)-1-(4-morpholin-4-yl-phenyl)- butan-1-one CAS 84434-11-7: 2,4,6-trimethylbenzoylphenyl phosphinate CAS 272460-97-6: 1-Propanone,1-[4-[(4- benzoylphenyl)thio]phenyl]-2-methyl-2-[(4- methylphenyl)sulfonyl]-, CAS 162881-26-7: Bis(2,4,6-trimethylbenzoyl)- phenylphosphineoxide	Nov-24	

[A] = For accredited and non-accredited status please see Online portal (ODIN)

For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (<u>www.DRRR.de</u>). You can also use the registration forms on page 32 of this catalogue.

### toys

24

Art. No.	proficiency testing type <sup>[A]</sup>	requested parameters	period	To view pricing information visit our online Portal:
2010562	Scraped-off materials - Elements Part 1 (EN 71-3)	zinc, nickel, strontium, barium, cadmium, lead	May-24	Login or register
2010564	Toys - colourfastness (saliva simulant, DIN 53160-1)	Test with artificial saliva	Jun-24	
2010566	Toys - colourfastness (sweat simulant, DIN 53160-2)	Test with artificial sweat	Jun-24	
2010626	Liquid toys - preservatives (EN 71-10, EN 71-11)	methylisothiazolinone (MI), benzisothiazolinone (BIT)	Apr-24	
2010253	Finger paint - NDELA (EN 71- 12)	N-Nitrosodiethanolamine (NDELA)	Apr-24	
2010255	Toys - Dyes (EN 71-11)	Dyes according to table 2 B of EN 71-9	Jul-24	
2010257	Toys - Aqueous migrate: phenol (EN 71-11)	phenol	Aug-24	
2010259	Toys - Aqueous migrate: bisphenol A (EN 71-11)	bisphenol A	Jul-24	
2010262	Toys - Aqueous migrate: acrylamide (EN 71-11)	acrylamide	Aug-24	
2010299	wobble mass, slime - boron (EN 71-3)	boron	Sep-24	
2010301	Formaldehyde release (EN 717-3) (use of a model matrix)	formaldehyde (flask method)	Oct-24	
2010309	Finger paint - primary aromatic amines (EN 71-7))	CAS 101-77-9 (4,4'-Methylenedianiline), CAS 95-53-4 (o-Toluidine), CAS 90-04-0 (2- Methoxyaniline), CAS 106-47-8 (4- Chloraniline), CAS 91-59-8 (2- Napthylamine), CAS 92-87-5 (Benzidine), CAS 62-53-3 (Aniline), CAS 119-93-7 (3,3'- Dimethylbenzidine), CAS 91-94-1 (3,3'- Dichlorbenzidine) and CAS 119-90-4 (3,3'- Dimethoxybenzidine). The samples contain at least 5 aromatic amines.	Dec-24	

For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (<u>www.DRRR.de</u>). You can also use the registration forms on page 32 of this catalogue.

## toys

25

Art. No.	proficiency testing type <sup>[A]</sup>	requested parameters	period	To view pricing information visit our online Portal:
2010440	Finger paint - Preservatives (EN 71-7)	sorbic acid, benzoic acid, 2- phenoxyethanol, PHB ester	Aug-24	Login or register
2011009	Toys - lead, cadmium (CPSC- CH-E1004-11, CPSC-CH- E1002-08.3)	Lead, cadmium	Jul-24	
2011154	toys - migration of plasticizers (EN 71-9)	CAS 115-86-6 (Triphenylphosphate) , CAS 73-30-8 (Tri-o-tolyl-phosphate), CAS 536-04- 2 (Tri-m-tolyl-phosphate), CAS 78-32-0 (Tri- p-tolyl-phosphate)	Sep-24	
2011155	toys - wood preservative (EN 71-10, EN 71-11)	Pentachlorophenol and its salts, lindane, cyfluthrin, cypermethrin, deltamethrin, permethrin	Jun-24	
2011156	Scraped-off materials - Elements Part 2 (EN 71-3)	tin, antimony, cobalt, chromium III, chromium VI, total chromium	Dec-24	
2011157	toys - organotin, scrapped-off materials (EN 71-3)	Organotin - organotin compounds: butyltin, dibutyltin, tributyltin	Sep-24	

Art. No.	proficiency testing type <sup>[A]</sup>	requested parameters	period	To view pricing information visit our online Portal:
2010914	organic acids	citric acid, formic acid, amidosulfonic acid	Oct-24	Login or register
2010916	oxidizing agent	sodium hypochlorite, hydrogen peroxide, percarbonate	Oct-24	
2010918	reducing agent	sodium dithionite, sulphurous acid, oxalic acid	Oct-24	
2010920	acid / alkali cleaning agent	pH value, acid reserve, alkali reserve	Apr-24	
2010922	alcohol-based cleaner	ethanol	Apr-24	
2010432	hygienic rinsing agent - disinfectant	DDAC (didecyldimethylammonium chloride), BAC (benzalkonium chloride)	Jul-24	
2010436	denaturant	Bitrex (denatonium benzoate)	Jul-24	
2010438	disinfectant	formaldehyde, glutaraldehyde, triclosan	Jul-24	

## cleaning agent

### metals

Art. No.	proficiency testing type <sup>[A]</sup>	requested parameters	period	
2010171	Metal - elemental determination by XRF	determination of various elements, e.g. nickel, copper, zinc, lead	Jul-24	
2010416	Refractory products - elemental determination by XRF (ISO 12677)	Determination of various elements, e.g. nickel, copper, zinc, lead	Jul-24	

Proficiency Testing for coating thickness in metal can be found in the catalogue "material testing" or the online catalogue.

Art. No.	proficiency testing type <sup>[A]</sup>	requested parameters	period	
2010267	liquids from e-cigarettes (ISO 20714)	glycerin, propylene glycol, nicotine	Sep-22	
2010420	liquid from CBD cigarettes	CAS 13956-29-1 Cannabidiol (CBD), CAS 586-62-9 Terpinolene, CAS 5989-27-5 D- Limonene, CAS 87-44-5 β-Caryophyllene, CAS 13877-91-3 Ocimene, CAS 123-35-3 Myrcene, CAS 80-56-8 α-Pinene, CAS 127- 91-3 β-Pinene	Sep-22	

## e-cigarettes

### leather

Art. No.	proficiency testing type <sup>[A]</sup>	requested parameters	period	To view pricing information visit our online Portal:
2010186	Leather - Identification with microscopy (ISO 17131)	identification of leather (imitation leather and leather of various animal species)	May-24	Login or register
2010189	Leather – total metal content (ISO 17072-2)	chromium, lead, cadmium, nickel, aluminium, titanium, zirconium, iron	May-24	
2010233	Leather – water soluble matter (ISO 4098)	water-soluble substances, water-soluble inorganic substances	May-24	
2010192	Leather - volatile matter (ISO 4684)	Mass of volatile substances	Jun-24	
2010194	Leather – preservative content (ISO 13365-1)	CAS 21564-17-0 (TCMTB), CAS 59-50-7 (CMK), CAS 90-43-7 (OPP), CAS 26530-20-1 (OIT)	Jun-24	
2010196	Leather – formaldehyde content (ISO 17226-1)	CAS 50-00-0 (formaldehyde)	Oct-24	
2010198	Leather - Aromatic amines from azo dyes (ISO 17234-1)	Quantitative detection of azo dyes over aromatic amines according to ISO 17234-1 (at least 3)	Jul-24	
2010200	Leather - 4- aminoazobenzene (ISO 17234-2)	CAS 60-09-3 (4-aminoazobenzene) according to ISO 17234-2	Jul-24	
2010202	Leather – chlorophenols (ISO 17070)	Tetrachlorphenol-, Trichlorphenol-, Dichlorphenol-, Monochlorphenol- Isomeren und CAS 87-86-5 (Pentachlorphenol)	Jul-24	
2010265	Leather - Determination of organotin compounds	CAS 1118-46-3 (monobutyltin trichloride), CAS 3091-25-6 (trichlorooctylstannane), CAS 683-18-1 (dibutyltin dichloride), CAS 3542-36-7 (dioctyltin dichloride), CAS 1461- 22-9 (tributyltin chloride), CAS 639-58-7 (triphenyltin chloride), CAS 3091-32-5 (tricyclohexyltin chloride), CAS 1461-25-2 (tetra-n-butyltin)	Aug-24	
2010211	Leather – Alkylphenols, ethoxylates (ISO 18218-1,-2)	CAS 68412-54-5 (nonylphenol ethoxylate), CAS 9002-93-1 (octylphenol ethoxylate), CAS 84852–15–3 4-(nonylphenol isomer mixture), CAS 140–66–9 (4-tert- octylphenol)	Aug-24	
2010305	Leather – Determination of naphthalene	CAS 91-20-3 (naphthalene)	Jun-24	
2010418	Leather – extractable metals (ISO 17072-1)	antimony, arsenic, lead, cadmium, chromium, cobalt, copper, nickel	Dec-24	

Proficiency Testing for mechanical leather testing can be found in the catalogue "material testing" or the online catalogue.

[A] = For accredited and non-accredited status please see Online portal (ODIN)

### leather

27

Art. No.	proficiency testing type <sup>[A]</sup>	requested parameters	period	To view pricing information visit our online Portal:
2011005	Footwear materials - Dimethyl fumarate (DMFU) (ISO 16186)	Dimethyl fumarate (DMFU)	Aug-24	Login or register
2011007	Footwear materials - Dimethylformamide (DMF) (ISO 16189)	Dimethylformamide (DMF)	Aug-24	
2011122	Leather - pesticide residues content (ISO 22517)	This is a multi-residue proficiency testing. For the proficiency testing schemes on pesticides/ pesticide residues, a pre- selection of pesticides has been made according to relevance: viewable in the list of analytes published by the DRRR in Annex 1. From this list, a selection of pesticides will be available for identification and quantification in the proficiency testing.	Oct-24	
2011143	Leather - Perfluorinated compounds (ISO 23702-1)	CAS 1763-23-1 (perfluorooctanesulfonic acid), CAS 335-67-1 (perfluorooctanoic acid), CAS 375-95-1 (perfluorononanoic acid), CAS 355-46-4 (perfluorohexanesulfonic acid)	Sep-24	
2011145	Leather - Bisphenols (ISO 11936)	Bisphenol A, Bisphenol B, Bisphenol F, Bisphenol S	Apr-24	
2011146	Footwear materials - PAHs (ISO 16190)	CAS 91-20-3 (naphthalene), CAS 120-12-7 (anthracene), CAS 56-55-3 (benzo(a)anthracene), CAS 218-01-9 (chrysene), CAS 205-99-2 (benzo(b)fluoranthene), CAS 207-08-9 (benzo(k)fluoranthene), CAS 205-82-3 (benzo(j)fluoranthene), CAS 192-97-2 (benzo(e)pyrene), CAS 50-70-3 (benzo(a)pyrene), CAS 53-70-3 (dibenz(ah)anthracene) (at least 5 of the parameters quantitative)	Oct-24	

Proficiency Testing for mechanical leather testing can be found in the catalogue "material testing" or the online catalogue.

## kitchen utensils and dishes

Art. No.	proficiency testing type <sup>[A]</sup>	requested parameters	period	To view pricing information visit our online Portal:
2010407	release of metals from enamel (ISO 4531)	Release of various metals in the simulant 3% acetic acid	Oct-24	Login or register
2010411	Ceramics - specific migration: lead, cadmium (EN 1388-1)	Lead and cadmium in the simulant acetic acid (40 ml/l)	Oct-24	
2010414	Ceramics - specific migration: cobalt	Cobalt in the simulants 4% acetic acid, 0,5% citric acid and 10% acetic acid	Oct-24	

## adhesive

Art. No.	proficiency testing type <sup>[A]</sup>	requested parameters	period
2010422	Adhesive - preservatives	Methylisothiazolinone (MIT), Chloromethylisothiazolinone (CIT), Benzisothiazolinone (BIT), Octylisothiazolinone (OIT), Phenoxyethanol	Jun. 24
2010424	Adhesive - formaldehyde (ISO 11402)	Formaldehyde	Jun. 24
2010426	Adhesive - VOC	VOC in the value range 0,01-0,1% (100-1000 mg/kg), e.g. 1-Butanol, Acetone, Benzene, Toluene, Styrene	Okt. 24
2010428	Adhesive - solvents	e.g. ethanol, acetone, benzene, toluene, methyl acetate (The test should be carried out according to EN ISO 11890-2 or a comparable method. Solvent quantities of more than 0,01% by mass are to be expected.)	Jun. 24
2010925	Adhesive - Migration of primary aromatic amines	CAS 823-40-5 (2,6-Diamino-toluol), CAS 95- 80-7 (2,4-Diamino-toluol), CAS 101-77-9 (4,4-Diamino-diphenylmethan), CAS 1208- 52-2 (2,4-Diamino-diphenylmethan), CAS 6582-52-1 (2,2-Diamino-diphenylmethan) in the simulant 3% acetic acid	Jun. 24

[A] = For accredited and non-accredited status please see Online portal (ODIN)

### rubber

Art. No.	proficiency testing type <sup>[A]</sup>	requested parameters	period	To view pricing information visit our online Portal:
2010853	Rubber - PAH content	CAS 91-20-3 (naphthalene), CAS 120-12-7 (anthracene), CAS 56-55-3 (benzo(a)anthracene), CAS 218-01-9 (chrysene), CAS 205-99-2 (benzo(b)fluoranthene), CAS 207-08-9 (benzo(k)fluoranthene), CAS 205-82-3 (benzo(j)fluoranthene), CAS 192-97-2 (benzo(e)pyrene), CAS 50-70-3 (benzo(a)pyrene), CAS 53-70-3 (dibenz(ah)anthracene) (at least 5 of the parameters quantitative)	Sep-24	<u>Login or register</u>
2011130	Rubber - overall migration (one-sided contact)	food simulating matrix: ethanol 10%, 20%, 50%, acetic acid 3%, vegetable oil	Jan-24	
2011131	Rubber - overall migration (total immersion)	food simulating matrix: ethanol 10%, 20%, 50%, acetic acid 3%, vegetable oil	Oct-24	
2011132	Rubber - overall migration (substitute test, one-sided contact)	food simulating matrix: ethanol 95%, ISO- octane	Dec-24	
2011133	Rubber - Specific migration: metals	specific migration of zinc, aluminium, lead in simulant acetic acid 3% and ethanol 95%	Nov-24	
2011134	Rubber - Specific migration: antioxidant	CAS 68610-51-5 Poly(dicyclopentadiene-co-p-cresol) in simulant ethanol 95% and ISO octane	Jan-24	

[A] = For accredited and non-accredited status please see Online portal (ODIN)

# organoleptic proficiency testing

For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (<u>www.DRRR.de</u>). You can also use the registration forms on page 32 of this catalogue.

### films

Art. No.	proficiency testing type <sup>[A]</sup>	requested parameters	period	To view pricing information visit our online Portal:
For the foll	owing proficiency testing sc	s online:	Login or register	
3010011	sensory testing of food contact materials and articles (FCM) (DIN 10955)	examination for panels - minimum number of participants: 6 assessors! organoleptic analysis - sample preparation, intensity estimation, descriptive testing	Sep-24	

## paper / board

Art. No.	proficiency testing type <sup>[A]</sup>	requested parameters	period		
For the following proficiency testing schemes you can not enter your results online:					
3010024	sensory of board and paper acc. to EN 1230	examination for panels - minimum number of participants: 6 assessors! organoleptic analysis - sample preparation, intensity estimation, descriptive testing	Sep-24		
3010022	threshold value examination off flavour	organoleptic analysis - threshold value examination for packaging off-flavour	Aug-24		

[A] = For accredited and non-accredited status please see Online portal (ODIN)

# registration form proficiency testing

Deutsches Referenzbüro für Ringversuche und Referenzmaterialien

Article No. / proficiency testing type	period	result release and report online (ODIN)	result release by e- mail / fax; report by e- mail	additional sample sets / assessor (organoleptic)

Up to nine additional result sheets can be returned for chemical-physical, microbiological and physical-mechanical proficiency testing rounds are free of charge. As a participant, you benefit from our international recognized proficiency testing schemes. By submitting up to ten result sheets you are now enabled to run international comparisions to check different methods and different lab technicians with one proficiency testing round. Your benefit: Participating in DRRR-proficiency testing services save costs for your quality assurance! If you need additional sample sets, you have the opportunity to order it according to our latest product catalogue.

Please note, that the free of charge service is only valid for returning result sheets by ODIN. If you send us your results by mail, fax or postal delivery, the additional result sheet will be charged according the latest product catalogue as a sample set equivalent.

In very rare individual cases an accredited proficiency testing round will not be carried out within the scope of accreditation due to technical or organizational reasons. In these rare cases the DRRR will inform the participants before the start of the proficiency testing round, thus before the sample shipment. An immediately free cancellation for the participants is possible until the date of the sample shipment.

Your registration is an one-time order. It is only valid for one year. Cancelation fees apply when cancelling a registration. If you want to have a permanent-registration please tick the box on the right side. Please send registration to: fax-no. +49 (0)8 31/960 878-99 e-mail: <u>info@DRRR.de</u> online via <u>www.odin.drrr.de</u>

- O this registration is permanent-registration and valid until my cancelation
- O An offer with the total costs is needed
- O A Purchase order from the purchasing department will follow

DRRR-customer number	
company	
company (additional line)	
contact person	
street	
post-code /city	
fon	
fax	
e-mail	
e-mail for invoices	
VAT-ID-No. (if available)	
Vith your signature you agree	

32

With your signature you agree with our general terms and conditions.

date

signature

#### Importance

Reference material is a substance or item with one or more defined (known) characteristics and sufficient homogeneity.

#### Benefit of using certified reference materials

These materials are suitable for the calibration of equipment, for the quality assurance of testing methods or to analyse derivate reference materials. DRRR-Reference materials are essential for the chemical, physical, microbiological and sensory analytics as well as for the quality assurance. Standards for the accreditation of testing and calibration laboratories demand the using of reference materials.

The use of reference materials (RM) and certified reference materials (CRM) is an important procedure to avoid mistakes in the lab routine.

#### **Characteristics**

- the reference value is developed by the total number of results of the participants of proficiency testing (consensus value)
- DRRR-Reference materials do always refer to
- a DRRR-Proficiency testing
- reliable reference values according to
- advanced statistical evaluation
- · independent service without influence of
- societies organisations and federations

The opportunity to collaborate with the best laboratories for the different requirements assures the high quality of our materials.

#### Identification

The reference materials listed on the following pages have specific article numbers to identify the materials. To supply our customers with consistently high quality the DRRR-reference materials will be replaced regularly by corresponding materials during the year. Currently available reference materials and its corresponding reference values will be sent on request. We reserve our right to send you always the latest materials. Description reference material

Profit with our high quality standards for your lab work

Reference materials meet all requirements of the ISO Guides 31 and 35, but it does not exist any accreditation for reference

Availability and order request of reference material

Please use the order from on page 50.

## films

Art. No.	material description	parameter *	additional information	packaging unit	prices
1151001	overall migration of plastic film (one-sided contact)	ethanol 10 %, ethanol 20 %, ethanol 50 %, acetic acid 3 %, distilled water, vegetable oil	-	1 film á app. 40 x 60 cm	100 €
1151002	overall migration of plastic film (total immersion)	ethanol 10 %, ethanol 20 %, ethanol 50 %, acetic acid 3 %, distilled water, vegetable oil	-	1 film á app. 40 x 60 cm	100€
1151044	overall migration of plastic film (article filling)	ethanol 10 %, ethanol 20 %, ethanol 50 %, acetic acid 3 %	-	310 ml	100€
1151045	overall migration of plastic film(fatty foodstuffs) ("substitute tests")	ISO-octane, ethanol 95 %	-	1 film á app. 40 x 60 cm	100€
1151046	overall migration of plastic film at high temperatures	olive oil	-	on request	100€
1151056	overall migration from plastic using MPPO as a simulant	overall migration by using Tenax (MPPO) as a simulant	-	app. 20 x 30 cm	100€
1151116	overall migration (pouch)	ethanol 10%, 20%, 50%, acetic acid 3% and vegetable oil	-	on request	100€
1151167	overall migration (fatty test food) (substitute test, one- sided contact)	Food simulants: ISO octane, 95% ethanol	-	on request	100€
1151003	specific migration of plastic film: caprolactam	ethanol 10 %, ethanol 20 %, ethanol 50 %, acetic acid 3 %, distilled water, vegetable oil	-	1 film á app. 40 x 30 cm 1 mm a	100€
1151004	specific migration of plastic film: therephthalic acid	ethanol 10 %, ethanol 50 %, acetic acid 3 %, distilled water, vegetable oil	-	app. 34 x 15	100€
1151005	specific migration of plastic film: acrylonitrile	ethanol 10 %, acetic acid 3 %, distilled water, olive oil	-	app. 103 g granulate	100€
1151054	specific migration of plastic film: 1-Octen	ethanol 50 %, ethanol 95 %, vegetable oil	-	app. 90 g granulate	100€
1151058	specific migration of plastic film: melamine	ethanol 10%, acetic acid 3%, distilled water, vegetable oil	-	4 x 5 g granules	100€
1151059	specific migration of plastic film: vinyl acetate	ethanol 10%, acetic acid 3%, distilled water, olive oil	-	103 g	100€
1151105	specific migration (acrylonitrile trimers)	acrylonitrile trimers	-	on request	100€
1151130	specific migration (primary aromatic amines) 1	CAS 95-53-4 (o-toluidine), CAS 92-87- 5 (benzidine), CAS 62-53-3 (aniline) and CAS 91-94-1 (3,3'- dichlorobenzidine) in simulant distilled water, 3% acetic acid, CAS 101-77-9 (4,4'-Methylenedianiline)	-	on request	100€
1151131	specific migration (primary aromatic amines) 2	CAS 90-04-0 (2-methoxyaniline), CAS 106-47-8 (4-chloroaniline), CAS 91-59- 8 (2-napthylamine) and CAS 119-93-7 (3,3'-dimethylbenzidine) in simulant 10% ethanol and 15% ethanol	-	on request	100€

\* in individual cases it can happen that there is no reference value available for a listed parameter

Please use the order from on page 50.

## films

Art. No.	material description	parameter *	additional information	packaging unit	prices
1151158	specific migration metals part 1	specific migration of antimony, arsenic, cadmium in simulant acetic acid 3%, water	-	on request	100€
1151159	specific migration metals part 2	specific migration of total chromium, lead, iron in simulant acetic acid 3%, water	-	on request	100€
1151006	identification of polymer material (mono-layer plastic film)	qualitative identification (e.g. PE, PP, …)	-	set consists of 3 foils á app.10 x 10	100€
1151007	identification of plastic granules	qualitative identification	-	30 ml	100€
1151008	identification of polymer material (multi-layer plastic film)	qualitative identification of single polymer layers in a multi-layer plastic foil (e.g. PE, PP, …)	-	set consists of 3 foils á app.20 x 30 cm	100€
1151079	identification of different PA types	e.g. PA6, PA6.6, PA11, PA12	-	app. 15 g	100€
1151163	Identification of microplastic	qualitative determination of microplastics in water	-	on request	100€
1151164	Elemental determination of plastics by X-ray fluorescence analysis (XRF)	arsenic, total bromine, cadmium, total chromium, mercury, lead, sulfur, antimony, tin, zinc	-	on request	100€
1151077	testing of: ethylene glycol in food simulant	ethanol 10%; 20%; 50%, acetic acid 3%, distilled water, vegetable oil	-	100 ml	100€
1151078	testing of: di-ethylene glycol in food simulant	ethanol 10%; 20%; 50%, acetic acid 3%, distilled water, vegetable oil	-	100 ml	100€
1151048	testing of: Bisphenol A in food simulant	distilled water, acetic acid 3 %, ethanol 10 %	-	100 ml	100€
1151049	testing of: formaldehyde in food simulant	distilled water, acetic acid 3 %, ethanol 10 %, vegetable oil	-	100 ml	100€
1151060	testing of: acrylamide	ethanol 10%, acetic acid 3%, distilled water, olive oil	-	100 g	100€
1151047	determination of overall migration potential by rapid extraction	ISO-octane, ethanol 95 %	-	on request	100€
1151009	determination of overall migrat on synthetic samples	ethanol 10 %, ethanol 20 %, ethanol 50 %, acetic acid 3 %, distilled water	-	app. 20 x 30 cm	100€
1151050	determination of the phthalate content in consumer goods	DBP, BBP, DEHP, DNOP, DINP, DIDP, DEP, DMP	-	3 g	339€

\* in individual cases it can happen that there is no reference value available for a listed parameter

Please use the order from on page 50.

## films

Art. No.	material description	parameter *	additional information	packaging unit	prices
1151051	determination of vinylchloride monomer in synthetic sample	vinyl chloride monomer	-	on request	100€
1151061	acetaldehyde in mineral water	acetaldehyde	-	75 ml	100€
1151062	determination of bisphenol A content in plastics	bisphenol A monomer	-	5 g	100€
1151063	determination of 1,3 butadiene content in plastics	1,3 butadiene monomer	-	4 g	100€
1151114	styrol oligomers in synthetic samples	CAS 1001-75-0 (1,3-Diphenylpropane), CAS 16606-47-6 (2,4-Diphenyl-1- butene), CAS 20071-09-4 (trans-1,2- Diphenylcyclobutane), CAS 18964-53- 9 (2,4,6-Triphenyl-1-hexene) and CAS 26681-79-8 (1-Phenyl-4-(1- phenylethyl)-1,2,3,4- tetrahydronaphthalene)	-	on request	100€
1151132	determination of the PAH content in plastics	CAS 91-20-3 (naphthalene), CAS 120- 12-7 (anthracene), CAS 56-55-3 (benzo(a)anthracene), CAS 218-01-9 (chrysene), CAS 205-99-2 (benzo(b)fluoranthene), CAS 207-08-9 (benzo(k)fluoranthene), CAS 205-82-3 (benzo(j)fluoranthene), CAS 192-97-2 (benzo(e)pyrene), CAS 50-70-3 (benzo(a)pyrene), CAS 53-70-3 (dibenz(ah)anthracene) (at least 5 of the parameters quantitative)	-	on request	100 €
1151173	Volatile fractions in silicone	gravimetric determination of the volatile fractions	-	on request	100€

\* in individual cases it can happen that there is no reference value available for a listed parameter

Please use the order from on page 50.

## paper / board

Art. No.	material description	parameter *	additional information	packaging unit	prices
1151015	mineral oil in cardboard	MOSH C10-C16, MOSH C16-C20, MOSH C20-C25, MOSH C25-C35, MOAH C10-C16, MOAH C16-C25, MOAH C25-C35	-	1 cardboard á app. 30 x 20 cm	100€
1151016	mineral oil in low-fat and starch-rich foodstuff	MOSH C10-C16, MOSH C16-C20, MOSH C20-C25, MOSH C25-C35, MOSH C35-C40, MOSH C40-C50, MOAH C10-C16, MOAH C16-C25, MOAH C25-C35, MOAH C35-C50	-	50 g	100€
1151053	mineral oil in cocoa butter and chocolate	MOSH C10-C16, MOSH C16-C20, MOSH C20-C25, MOSH C25-C35, MOSH C35-C40, MOSH C40-C50, MOAH C10-C16, MOAH C16-C25, MOAH C25-C35, MOAH C35-C50	-	100 g	100€
1151104	mineral oil in cheese and milk powder	MOSH C10-C16, MOSH C16-C20, MOSH C20-C25, MOSH C25-C35, MOSH C35-C40, MOSH C40-C50, MOAH C10-C16, MOAH C16-C25, MOAH C25-C35, MOAH C35-C50	-	on request	100€
1151017	mineral oil in edible fat and edible oil	MOSH C10-C16, MOSH C16-C20, MOSH C20-C25, MOSH C25-C35, MOSH C35-C40, MOSH C40-C50, MOAH C10-C16, MOAH C16-C25, MOAH C25-C35, MOAH C35-C50	-	15 g	100€
1151052	migration of mineral oil from cardboard	Migration of mineral oil in food simulating matrix: Tenax	-	1 cardboard á app. 30 x 20	100€
1151161	Mineral oil in jute bags	MOSH C10-C16, MOSH C16-C20, MOSH C20-C25, MOSH C25-C35, MOSH C35-C40, MOSH C40-C50, MOAH C10-C16, MOAH C16-C25, MOAH C25-C35, MOAH C35-C50	-	on request	100€
1151055	migration from paper and board using MPPO as a simulant	overall migration by using Tenax (MPPO) as a simulant	-	1 cardboard á app. 30 x 20 cm	100€
1151064	pH value in aqueous extract (cold and hot)	pH value	-	on request	100€
1151066	determination of glyoxal content	glyoxal	-	ca. 10 g	100€
1151067	colour fastness of dyed paper and board	distilled water, acetic acid 3%, olive oil, alkali salt solution	-	1 cardboard á app. 30 x 20	100€
1151068	colour fastness of fluorescent whitened paper and board	distilled water, acetic acid 3%, olive oil, alkali salt solution	-	1 cardboard á app. 30 x 20	100€
1151149	overall migration of paper and cardboard	overall migration in simulant ethanol 95%	-	on request	100€
1151150	testing of benzophenone in food simulating matrix	specific migration of benzophenone in simulant ethanol 95%	-	on request	100€

\* in individual cases it can happen that there is no reference value available for a listed parameter

Please use the order from on page 50.

## paper / board

Art. No.	material description	parameter *	additional information	packaging unit	prices
1151151	gravimetric determination of constituents of paper - cardboard	dry content, residue on ignition, ash	-	on request	100€
1151152	determination of the DIPN content in paper - cardboard (EN 14719)	DIPN (Diisopropylnaphthalin)	-	on request	100€
1151153	determination of 1,3- dichloro-2-propanol and 3- monochloro-1,2-propanediol	1,3-dichloro-2-propanol, 3- monochloro-1,2-propanediol in water extract	-	on request	100€
1151154	PCB in paper - cardboard	PCB 52, PCB 101, PCB 138	-	on request	100€
1151155	cadmium and lead in aqueous extract (EN 12498)	cadmium, lead	-	on request	100€
1151156	determination of acid soluble manganese (ISO 1830)	manganese	-	on request	100€
1151157	bisphenol S in thermal paper	Bisphenol S	-	on request	100€
1151171	Determination of total chlorine and organically bound chlorine (ISO 11480)	total chlorine, organically bound chlorine	-	on request	100€

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Please use the order from on page 50.

## textiles

Art. No.	material description	parameter *	additional information	packaging unit	prices
1151018	extractable heavy metals in textiles	cadmium, lead, nickel, mercury, chromium (quantitative)	-	4 g	100€
1151020	flame retardants in textiles	tributyl phosphate (CAS No 126-73-8), o-triskresyl phosphate (CAS No 78- 30-8), tris(2-chloroethyl)-phosphate (CAS No 115-96-8), tris(2-chloro-1- methylethyl)-phosphate (CAS No 13674-84-5)	-	1 g	100€
1151021	azo dyes in textiles	qualitative determination of aromatic amines derived from azo dyes acc. EN 14362-1	-	2 g	100€
1151082	aniline in textiles	CAS 62-53-3 (aniline)	-	on request	100 €
1151083	2,4-xylidine and 2,6-xylidine in textiles	CAS 95-68-1 (2,4-xylidine), CAS 87-62- 7 (2,6-xylidine)	-	on request	100€
	alkylphenols and alkylphenol ethoxylates in textiles	CAS 68412-54-5 (nonylphenol ethoxylate), CAS 9002-93-1 (octylphenol ethoxylate), CAS 84852–15–3 4-(nonylphenol isomer	-	on request	100€
1151085	Textiles – Determination of chlorophenoles	Tetrachlorophenol-, trichlorophenol-, dichlorophenol-, monochlorophenol- isomers and CAS 87-86-5 (pentachlorophenol)	-	on request	100€
1151086	organotin compounds in textiles	CAS 1118-46-3 (monobutyltin trichloride), CAS 3091-25-6 (trichlorooctylstannane), CAS 683-18- 1 (dibutyltin dichloride), CAS 3542-36- 7 (dioctyltin dichloride), CAS 1461-22- 9 (tributyltin chloride), CAS 639-58-7 (triphenyltin chloride), CAS 3091-32-5 (tricyclohexyltin chloride), CAS 1461- 25-2 (tetra-n-butyltin)	-	on request	100€
1151087	perfluorinated compounds in textiles	CAS 1763-23-1 (perfluorooctane sulfonic acid), CAS 335-67-1 (perfluorooctanoic acid), CAS 375-95- 1 (perfluorononanoic acid), CAS 355- 46-4 (perfluorohexane sulfonic acid)	-	on request	100€
1151088	pesticides in textiles	Chlorinated and phosphorus containing pesticides	-	on request	100€
1151089	determination of the total metal content in textiles	e.g. tin, cadmium and mercury	-	on request	100€
1151090	phthalates in textiles	CAS 28553-12-0 (DINP), CAS 117-81-7 (DEHP), CAS 117-84-0 (DNOP), CAS 26761-40-0 (DIDP), CAS 85-68-7 (BBP), CAS 84-74-2 (DBP), CAS 84-69- 5 (DIBP), CAS 131-18-0 (DPP), CAS 71888-89-6 (DIHP), CAS 117-82-8 (DMEP)	-	on request	100€

\* in individual cases it can happen that there is no reference value available for a listed parameter

Please use the order from on page 50.

## textiles

Art. No.	material description	parameter *	additional information	packaging unit	prices
1151091	PAH in textiles	CAS 91-20-3 (naphthalene), CAS 120- 12-7 (anthracene), CAS 56-55-3 (benzo(a)anthracene), CAS 218-01-9 (chrysene), CAS 205-99-2 (benzo(b)fluoranthen), CAS 207-08-9 (benzo(k)fluoranthen), CAS 205-82-3 (benzo(i)fluoranthen), CAS 50-70-3 (benzo(e)pyren), CAS 50-70-3 (benzo(a)pyren), CAS 53-70-3 (dibenz(ah)anthracene) (minimum 5 of the parameters quantitative)	A PAH concentration in the samples of approximately 0,1-10 mg/kg per PAH is to be expected.	on request	100€
1151143	determination of lead release with saliva simulant solution in textiles (EN 16711-3)	lead	-	on request	100€
1151172	extractable dyestuffs in textiles (ISO 16373-2)	Detection of at least 3 extractable dyestuffs	-	on request	100 €
1151174	Chlorobenzenes and chlorotoluenes in textiles (EN 17137)	At least 4 different substances quantitatively	-	on request	100 €

\* in individual cases it can happen that there is no reference value available for a listed parameter

41

Please use the order from on page 50.

## tattoo ink

Art. No.	material description	parameter *	additional information	packaging unit	prices
1151030	preservatives in tattoo ink	benzisothiazolinone (BIT)	-	app. 10 g	100€
1151031	aromatic amins in tattoo ink	aniline, o-Anisidine, o-toluidine, 5- nitro-o-toluidine	-	app. 10 g	100€
1151039	nickel in tattoo ink	tin, zinc, nickel, strontium, antimony, barium, cadmium, cobalt, lead (minimum 4 of the parameters quantitative)	-	2 g	100€

## jewellery

Art. No.	material description	parameter *	additional information	packaging unit	prices
1151043	jewellery (acc. to EN 1811)	testing for nickel	-	1 metal 54x85x1 mm	100€
1151166	Lead and cadmium in jewelry	Lead, cadmium	-	on request	100€

\* in individual cases it can happen that there is no reference value available for a listed parameter

Please use the order from on page 50.

## cosmetics

Art. No.	material description	parameter *	additional information	packaging unit	prices
1151023	care products	methylparaben, ethylparaben, propylparaben, n-butylparaben, phenoxyethanol, benzoic acid, sorbic acid, methylisothiazolinone, isobutylparaben	-	50 g	100€
1151024	shampoo, lotion	fat, density, pH value, dry residue, water content, urea	-	300 ml	100€
1151025	cream, lotion	dexpanthenol, tocopherolacetat, retinolpalmitate	-	50 g	100€
1151026	Determination of the total fluoride content in dental care	fluoride	-	50 ml	100€
1151027	metals in cosmetics	aluminium, copper, zinc	-	15 ml	100€
1151071	heavy metals in cosmetics	lead, arsenic, antimony, nickel, cobalt, zinc, cadmium	-	50 ml	100€
1151028	quant. determination of UV filters	EHS, BMDM, EHT, PBSA, OC, titanium dioxide	-	25 g	100€
1151029	PAH in decorative cosmetics	naphthalene, anthracene, benzo(a)anthracene, chrysene, benzo(b)fluoranthen, benzo(k)fluoranthen, benzo(j)fluoranthen, benzo(e)pyren, benzo(a)pyren, dibenz(ah)anthracene	A PAH concentration in the samples of approximately 0,5-50 mg/kg per PAH is to be expected.	5 g	100€
1151037	tensides in cosmetics	Sodium Laureth Sulfate, Cocamidopropyl betaine (CAPB), Coco-glucoside	-	on request	100€
1151038	mineral oil hydrocarbons in care products	MOSH C10 - C50, MOAH C10 - C50	-	10 g	100€
1151069	Cosmetics - Determination of ant-dandruff products	pirocton-olamine, zinc pyrithione	-	5 g	100€
1151070	Determination of solvents in cosmetic products	ethanol, isopropyl alcohol, acetone, propylene glycol	-	50 ml	100€
1151117	perfume, body spray	flash point	-	on request	100€
1151128	self-tanner	dihydroxyacetone, formaldehyde	-	on request	100€
1151129	determination of sunscreen UVA photoprotection in vitro (ISO 24443)	UVA photoprotection	-	on request	100 €

\* in individual cases it can happen that there is no reference value available for a listed parameter

Please use the order from on page 50.

## printing inks

Art. No.	material description	parameter *	additional information	packaging unit	prices
1151010	migration of printing ink constituents quant. determination of monomers and initiators food simulating matrices: 50% ethanol, 95% ethanol type 1	CAS 94100-97-1: Di(tri- methylolpropan)tetraacrylat (Di- TMPTA), CAS 57472-68-1: Dipropylene glycol diacrylate (DPGDA), CAS 119313-12-1: 1-Butanone,2- (dimethylamino)-1-(4-(4- morpholinyl)phenyl)-2-(phenylmethyl)- CAS 84434-11-7: 2,4,6- trimethylbenzoylphenyl phosphinate	-	on request	113€
1151011	migration of printing ink constituents quant. determination of monomers and initiators food simulating matrices: 50% ethanol, 95% ethanol type 2	CAS 42978-66-5: Tri(propylene glycol)diacrylate (TPGDA), CAS 15625-89-5: Tri(methylolpropan)triacrylate (TMPTA), CAS 272460-97-6: 1-Propanone,1-[4- [(4-benzoylphenyl)thio]phenyl]-2- methyl-2-[(4-methylphenyl)sulfonyl]-, CAS 162881-26-7: Bis(2,4,6- trimethylbenzoyl)- phenylphosphineoxide	-	on request	113€
1151012	printing ink constituents in synthetic samples - monomers type 3	CAS 94100-97-1: Di(tri- methylolpropan)tetraacrylat (Di- TMPTA), CAS 57472-68-1: Dipropylene glycol diacrylate (DPGDA), CAS 42978-66-5: Tri(propylene glycol)diacrylate (TPGDA), CAS 15625-89-5: Tri(methylolpropan)triacrylate (TMPTA)	-	50 ml	113€
1151013	printing ink constituents in synthetic samples - initiators type 4	CAS 119344-86-4: 2-dimethylamino-2- (4-methyl-benzyl)-1-(4-morpholin-4-yl- phenyl)-butan-1-one CAS 84434-11-7: 2,4,6- trimethylbenzoylphenyl phosphinate CAS 272460-97-6: 1-Propanone,1-[4- [(4-benzoylphenyl)thio]phenyl]-2- methyl-2-[(4-methylphenyl)sulfonyl]-, CAS 162881-26-7: Bis(2,4,6- trimethylbenzoyl)- phenylphosphineoxide	-	10 g	113€

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Please use the order from on page 50.

## toys

Art. No.	material description	parameter *	additional information	packaging unit	prices
1151040	elements in toys; scrapped- off materials	tin, zinc, nickel, strontium, antimony, barium, cadmium, cobalt, lead	-	app. 5 g	100€
1151041	colourfastness of articles for common use type 1	Test with artificial saliva	-	app. 10 x 10 cm	100 €
1151042	colourfastness of articles for common use type 2	Test with artificial saliva	-	app. 10 x 10 cm	100€
1151057	toys on water basis	methylisothiazolinone (MI), benzisothiazolinone (BIT)	-	app. 10 g	100€
1151106	finger color	N-Nitrosodiethanolamine (NDELA)	-	on request	100€
1151107	toy material extract: dyes	Dyes according to table 2 B of EN 71- 9	-	on request	100€
1151100	aqueous migrate: phenol	phenol	-	on request	100€
1151109	aqueous migrate: bisphenol A	bisphenol A	-	on request	100€
1151110	aqueous migrate: acrylamide	acrylamide	-	on request	100€
1151111	wobble mass, slime (EN 71- 3)	boron	-	on request	100€
1151115	primary aromatic amines in finger paint and colorants	CAS 101-77-9 (4,4'- Methylenedianiline), CAS 95-53-4 (o- Toluidine), CAS 90-04-0 (2- Methoxyaniline), CAS 106-47-8 (4- Chloraniline), CAS 91-59-8 (2- Napthylamine), CAS 92-87-5 (Benzidine), CAS 62-53-3 (Aniline), CAS 119-93-7 (3,3'- Dimethylbenzidine), CAS 91-94-1 (3,3'- Dichlorbenzidine) and CAS 119-90-4	-	on request	100€
1151148	preservative in finger pain (EN 71-7)	sorbic acid, benzoic acid, 2- phenoxyethanol, PHB ester	-	on request	100€
1151170	Lead and cadmium in children's toys (CPSC-CH- E1004-11, CPSC-CH-	Lead, cadmium	-	on request	100€

\* in individual cases it can happen that there is no reference value available for a listed parameter

Please use the order from on page 50.

## cleaning agent

Art. No.	material description	parameter *	additional information	packaging unit	prices
1151072	organic acids	citric acid, formic acid, amidosulfonic acid	-	on request	100 €
1151073	oxidizing agent	sodium hypochlorite, hydrogen peroxide, percarbonate	-	60 ml	100 €
1151074	reducing agent	sodium dithionite, sulphurous acid, oxalic acid	-	on request	100 €
1151075	acid / alkali cleaning agent	pH value, acid reserve, alkali reserve	-	50 ml	100€
1151076	alcohol-based cleaner	ethanol	-	50 ml	100 €
1151145	hygienic rinsing agent - disinfectant	DDAC (didecyldimethylammonium chloride), BAC (benzalkonium chloride)	-	on request	100€
1151146	denaturant	Bitrex (denatonium benzoate)	-	on request	100 €
1151147	disinfectant	formaldehyde, glutaraldehyde, triclosan	-	on request	100 €

### metals

Art. No.	material description	parameter *	additional information	packaging unit	prices
1151000	elemental determination of metal by X-ray fluorescence analysis (XRF)	determination of various elements, e.g. nickel, copper, zinc, lead	-	on request	100€
	chemical analysis of refractory products by X-ray fluorescence (XRF) - Fused cast-bead method (ISO 12677)	Determination of various elements, e.g. nickel, copper, zinc, lead	-	on request	100€

## e-cigarettes

Art. No.	material description	parameter *	additional information	packaging unit	prices
1151081	liquids from e-cigarettes	glycerin, propylene glycol, nicotine	-	on request	100€
1151138	liquid from CBD cigarettes	CAS 13956-29-1 Cannabidiol (CBD), CAS 586-62-9 Terpinolene, CAS 5989- 27-5 D-Limonene, CAS 87-44-5 β- Caryophyllene, CAS 13877-91-3 Ocimene, CAS 123-35-3 Myrcene, CAS 80-56-8 α-Pinene, CAS 127-91-3 β- Pinene	-	on request	100€

\* in individual cases it can happen that there is no reference value available for a listed parameter

<u>45</u>

Please use the order from on page 50.

# leather

Art. No.	material description	parameter *	additional information	packaging unit	prices
1151093	identification of leather by microscopy	identification of leather (imitation leather and leather of various animal species)	-	on request	100€
1151094	determination of the total metal content in leather (ISO 17072-2)	chromium, lead, cadmium, nickel, aluminium	-	on request	100€
1151095	determination of water soluble substances in leather	water-soluble substances, water- soluble inorganic substances	-	on request	100€
1151096	determination of volatile substances in leather	Mass of volatile substances	-	on request	100€
1151097	determination of preservatives in leather	CAS 21564-17-0 (TCMTB), CAS 59-50- 7 (CMK), CAS 90-43-7 (OPP), CAS 26530-20-1 (OIT)	-	on request	100 €
1151099	determination of aromatic amines from azo dyes in leather	qualitative and quantitative detection of azo dyes over aromatic amines according to ISO 17234-1	-	on request	100€
1151100	determination of 4- aminoazobenzene in leather	CAS 60-09-3 (4-aminoazobenzene) according to ISO 17234-2	-	on request	100€
1151101	chlorophenols in leather	Tetrachlorophenol-, trichlorophenol-, dichlorophenol-, monochlorophenol- isomers and CAS 87-86-5 (pentachlorophenol)	-	on request	100€
1151102	organotin compounds in leather	CAS 1118-46-3 (monobutyltin trichloride), CAS 3091-25-6 (trichlorooctylstannane), CAS 683-18- 1 (dibutyltin dichloride), CAS 3542-36- 7 (dioctyltin dichloride), CAS 1461-22- 9 (tributyltin chloride), CAS 639-58-7 (triphenyltin chloride), CAS 3091-32-5 (tricyclohexyltin chloride), CAS 1461- 25-2 (tetra-n-butyltin)	-	on request	100€
1151103	alkylphenols and alkylphenol ethoxylates in leather	CAS 68412-54-5 (nonylphenol ethoxylate), CAS 9002-93-1 (octylphenol ethoxylate), CAS 84852–15–3 4-(nonylphenol isomer mixture), CAS 140–66–9 (4-tert- octylphenol)	-	on request	100€
1151113	naphthalene in leather	CAS 91-20-3 (naphthalene)	-	on request	100€
1151137	determination of extractable metals in leather (ISO 17072-1)	e.g. chrome, lead and cadmium	-	on request	100€
1151168	Dimethyl fumarate (DMFU) in footwear materials (ISO 16186)	Dimethyl fumarate (DMFU)	-	on request	100€
1151169	Dimethylformamide (DMF) in footwear materials (ISO 16189)	Dimethylformamide (DMF)	-	on request	100€

\* in individual cases it can happen that there is no reference value available for a listed parameter

46

Please use the order from on page 50.

# kitchen utensils and dishes

Art. No.	material description	parameter *	additional information	packaging unit	prices
1151133	release of metals from enamel (ISO 4531)	Release of various metals in the simulant 3% acetic acid	-	on request	100€
1151134	and cadmium from ceramics	Lead and cadmium in the simulant acetic acid (40 ml/l)	-	on request	100€
1151135	specific migration of cobalt from ceramics	Cobalt in the simulants 4% acetic acid, 0,5% citric acid and 10% acetic acid	-	on request	100€

### adhesive

Art. No.	material description	parameter *	additional information	packaging unit	prices
1151139	preservatives in adhesive	Methylisothiazolinone (MIT), Chloromethylisothiazolinone (CIT), Benzisothiazolinone (BIT), Octylisothiazolinone (OIT), Phenoxyethanol	-	on request	100€
1151140	formaldehyde in adhesive	Formaldehyde	-	on request	100€
1151160	Migration of primary aromatic amines in adhesive	CAS 823-40-5 (2,6-Diamino-toluol), CAS 95-80-7 (2,4-Diamino-toluol), CAS 101-77-9 (4,4-Diamino- diphenylmethan), CAS 1208-52-2 (2,4- Diamino-diphenylmethan), CAS 6582- 52-1 (2,2-Diamino-diphenylmethan) in the simulant 3% acetic acid	-	on request	100€

### rubber

Art. No.	material description	parameter *	additional information	packaging unit	prices
1151144	determination of the content of PAH in rubber	CAS 91-20-3 (naphthalene), CAS 120- 12-7 (anthracene), CAS 56-55-3 (benzo(a)anthracene), CAS 218-01-9 (chrysene), CAS 205-99-2 (benzo(b)fluoranthene), CAS 207-08-9 (benzo(k)fluoranthene), CAS 205-82-3 (benzo(j)fluoranthene), CAS 192-97-2 (benzo(e)pyrene), CAS 50-70-3 (benzo(a)pyrene), CAS 53-70-3 (dibenz(ah)anthracene) (at least 5 of the parameters quantitative)	-	on request	100€

\* in individual cases it can happen that there is no reference value available for a listed parameter

45

# organoleptic reference material

**48** 

Please use the order from on page 50.

# films

Art. No.	material description	parameter *	additional information	packaging unit	prices
3351001	sensory testing of food contact materials and articles (FCM) (DIN 10955)	sample set (raw material + instruction) for the intensity testing	-	sample set for one panel	161€

# paper / board

Art. No.	material description	parameter *	additional information	packaging unit	prices
13351003		sample set (raw material + instruction) for the intensity testing	-	sample set for one panel	161 €
3351002	threshold value examination "off flavour"	sample set (raw material + instruction) for the threshold value determination	off-flavour caused by packaging	sample set for one assessor	100€

\* in individual cases it can happen that there is no reference value available for a listed parameter

# other products / services

### Please use the order from on page 50.

material description	description	additional information	packaging unit	price
ADR- security certified DRRR- freezing packaging system RM-ADR VP 1	Our certified packagings fulfill the requirements of ADR especially of the dan-gerous goods directive GGVSE and GGVSee. These systems are also convenient for the shipping of pathogenic bacteria of risk group 2.	guaranteed temperature assurance: 24 hours	VP 1 app. 310 x 250 x 190 mm	16€
ADR- security certified DRRR- freezing packaging system RM-ADR VP 2	Our certified packagings fulfill the requirements of ADR especially of the dan-gerous goods directive GGVSE and GGVSee. These systems are also convenient for the shipping of pathogenic bacteria of risk group 2.	guaranteed temperature assurance: 48 hours	VP 2 app. 350 x 350 x 300 mm	26€

49

50	order form reference material	Referenzbüro für Ringversuche und Referenzmaterialien
quantity	material type / material description / article no.	notes (e.g. time period for regular delivery)

Please notice that we process orders only at a minimum order value of  $50 \in$ .

Please send order form to: fax-no. +49 (0)8 31/960 878-99 or e-mail: <u>info@DRRR.de</u>

- O An offer with the total costs is needed
- O A Purchase order from the purchasing department will follow

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quality management / quality assurance

We have collected wide experience in building up and operating process orientated quality management systems. Our experience is based on an intensive quality management qualification (DQG –EOQ quality manager). Feedback of our costumers gives us a wide overview about the various requirements that companies have to pass at audit situations.

As a qualified and examined auditor (DGQ-EOQ auditor quality, TGA) we are capable to estimate a company from different perspectives if quality management system is fit for audit and following we can show potentials for improvement.

building up and implementation of quality management systems in developing countries. We place our services at your disposal for international questions.

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On the basis of our

Please do not hesitate to contact us.

We offer assistance for the following questions:

- building up process orientated quality management
- building up of a secure testing agent system
- assessment of quality systems in preparation for audits
- advice in operating effective quality management systems

With our expertise in interpreting ISO 9001 over IFS to DIN 17025 we serve companies of food economy and laboratories.

#### **IR-Seminar**

The IR-seminar explains how to analyze different kind of food by IR spectroscopy. Furthermore specific peculiarties for the IR calibartion of selected food will be discussed. The specific peculiarties of the calibration will be explained intensify. How to calibrate? When you have to update the calibration? What is the cause of measurement problems?

#### Sensory seminar

The importance of the sensory in the food stuff industry will be explained and clarified in practice. The current state of new tastes is presented. Furthermore the participant will be enabling to apply the sensory testing methods. The use of sensory methods will be explained and on the basis of various sensory materials implemented.

#### **User-Workshop**

Typical questions in the chemical and microbiological analysis of food, especially dairy products are presented and possible solutions will be demonstrated.

Furthermore efficient ways to increase the laboratory quality will be presented. The seminar is accompanied by the practical experience of users.

#### Statistics seminar for beginners

This seminar presents the Binomial-, Poissonand Normal distribution and the application of them. Problem cases and the classis misinterpretation due to a false outlier treatment by the application of the Normal distribution are shown.

#### Statistics seminar for advanced learners

This seminar presents the Shapiro-Wilk-Test, qui<sup>2</sup>-adaptation test, Median and MAD (Median absolute deviation) and their application. Furthermore the participants will be informed about the robust standard deviation after Qmethod and the robust average after Hampel. The seminar will be complemented by theoretical exercises on IR spectroscopy. In the practical excericise calibration data sets will be testes for suitability and critical data sets will be identifed.

The sensory measurement uncertainty of each participant will be determined at a practical example.

A lot of space for the exchanging of knowledge and experience is provided at the User-Workshop. Therefore some experts are available as contact persons.

The seminar is complemented by practical exercises with the notebook.

The seminar is complemented by practical exercises with the notebook.

# Implementation of DIN EN ISO/IEC 17025 in food laboratories

The participants will learn all items to implement a successful internal audit. Furthermore typical errors of the implementation of the audit will be targeted and avoidance strategies are communicated. The reliable identification of the deviation in audits and their successful processing in the form of measures will be trained.

### Inhouse-Training

We consider lectures, training and seminars as in important duty. Not primary concerning commercial possibilities but by reason that the knowledge transfer is the most important item in every department of our society.

- Seminar and training (one-day) of handling and implementation of proficiency testing
- Seminar and training (one-day) of operating control charts
- Seminar and training of sensory (customised product sensory)

You will benefit of the extensive experience of the DRRR, because the DRRR go through the audit situation in a perspective of 360 ° as an auditor, as an audited person and as a neutral expert.

For special requirements we also offer customised training programmes.

For questions about contents and conditions do no hesitate to contact us.

### Terms of payment

Our prices are net prices (plus 19% value added tax). Customers from European countries can provide us with their EU-VAT-Identification number, then they will be exempt from German value added tax. Terms of payment: 8 days net, without deduction Fees for specially required customs documents such as import permits or similar will be invoiced according to time and effort.

Our bank details: Raiffeisenbank in Allgäuer Land / bank code 733 692 64 Account 102350 / IBAN DE 94733692640000102350 BIC code: GENO DEF1DTA Sales tax ID no. DE254613132 tax number 127/124/32207

### Terms of delivery

Shipping costs for reference materials and proficiency tests will be invoiced according to time and effort. All samples and packaging materials are the property of the DRRR. Samples that are used for nondestructive testing and are therefore not subject to destruction in the course of the proficiency test can be reclaimed by the DRRR upon request. The DRRR shall bear the shipping costs for the return transport if the materials are reclaimed.

Proficiency tests or reference materials marked "frozen" are shipped with our ADR safety tested frozen packaging system. A packaging fee is charged for the polystyrene box including cooling accumulators and air bubble film as well as the protective outer packaging. Frozen materials are shipped by express service. With the delivery of reference materials, you will receive a quality certificate with the details of the respective reference values as well as associated uncertainties.

### Terms of delivery (risk group 1, 2 and 3)

Proficiency tests or reference materials marked with "Risk Group 1" are not subject to any participation restrictions according to § 44 IfSG (Infektionsschutzgesetz).

For proficiency tests or reference materials marked with "risk group 2, or risk group 3<sup>\*\*</sup>", we need a permission from your laboratory according to § 44 IfSG (Infektionsschutzgesetz) or similar. Please enclose a copy of the permission with your registration or order.

Our general terms and conditions (Allgemeine Geschäftsbedingungen) are valid!

The German reference office for proficiency testing and reference materials GmbH (hereinafter referred to as DRRR) for freely agreed services, in particular testing, training and expert activities as well as reference materials.

### § 1 General terms and conditions

The client acknowledges the General Terms and Conditions and price lists valid at the time of placing the order. Deviating terms and conditions of individual clients cannot be accepted.

Collateral agreements, promises and other declarations by the employees of the DRRR are only binding if they are expressly confirmed in writing by the DRRR. This shall also apply to amendments to this clause. If individual regulations within this contract or its components are ineffective, this does not affect the validity of the remaining regulations. The contracting parties shall have a duty, acting in accordance with the principles of good faith, to replace any invalid provision by one which is valid and which produces the same economic outcome as that intended by the invalid provision and providing that such replacement does not result in any change to the content of the contract; the same shall also apply analogously to any matter which requires regulation but for which no provision is made in these Terms and Conditions.

#### § 2 Execution of the order

The orders accepted by the DRRR shall be carried out or expert opinions shall be prepared in accordance with the recognized rules of technology and – unless otherwise agreed in writing – in the manner customary at the DRRR. No responsibility shall be assumed for the correctness of the safety programs or safety regulations on which the tests are based, unless expressly agreed otherwise in writing.

The scope of the DRRR's work shall be specified in writing when the order is placed. If the proper execution of the order results in changes or extensions to the specified scope of the order, such changes or extensions shall be agreed in writing prior to execution. If the Customer can no longer be reasonably expected to adhere to the contract with regard to the changes or extensions, the Customer shall in this case be entitled to withdraw from the contract. However, according to § 649 BGB, the client must pay the agreed remuneration or, in the absence of an agreement, an appropriate remuneration.

The contractual services of the DRRR are deemed to have been rendered upon preparation of the respective final reports or expert reports.

A seminar registration can be cancelled free of charge for up to 6 weeks, after which the customer will be invoiced for the costs of the participants depending on the time and effort involved.

The following cancellation conditions apply to the cancellation of a proficiency testing:

Consolution notification pariod	Permanent registration (D)	
Cancelation notification period:	single (one-time) registration (E)	
up to 2 months before the preficiency testing	no costs (D)	
up to 3 months before the proficiency testing	50,00 € (E)	
2 months before the preficiency testing start	50,00 € (D)	
3 months before the proficiency testing start	half proficiency testing price (E)	
sample shipment – deadline of the results	complete price of the proficiency testing and any further incurred costs (D & E)	

#### § 3 Deadlines

The order deadlines specified by the DRRR shall not be binding unless their binding nature has been expressly agreed in written form.

52

### § 4 Warranty and liability

The integrity of the sample material to a defined condition is only guaranteed until the first border crossing in the case of foreign shipments.

Safety note: When sending materials of risk group 2, the DRRR must receive a letter from the recipient stating that the recipient is authorized to handle hazardous materials (e.g. pathogenic germs).

The DRRR's warranty only covers the services expressly commissioned to it pursuant to Section 2. No warranty is thereby assumed for the correctness and functioning of the relevant overall system, measuring instruments or materials to which the examined or tested samples belong; in particular, the DRRR bears no responsibility for packaging, material selection and construction of the examined systems, measuring instruments or assemblies, unless these issues are expressly the subject of the order.

Even in the latter case, the warranty obligation and legal responsibility of the manufacturer are neither limited nor assumed.

The warranty obligation of the DRRR is limited to the rectification of an error or defect or, in the absence of a warranted characteristic, to the achievement of this characteristic within a reasonable period of time. If the rectification or creation of the characteristic fails, i.e. if it becomes impossible or unreasonable for the Customer or is refused or unduly delayed by the DRRR, the Customer shall be entitled to demand a reduction in the remuneration or rescission of the contract, at its discretion.

The DRRR shall not be liable for any work performed by the Customer in the event of incorrect proficiency tests or reference materials.

The DRRR only assumes liability for certain properties, in particular for the fact that the service is suitable for the purposes of the Customer, if a corresponding assurance of the properties in question has been given. Any liability for consequential damages from positive breach of contract due to warranted characteristics is excluded, unless the warranty was intended to protect against such consequential damages. Claims for damages of the client from §§ 463, 635 BGB due to the lack of assured characteristics remain unaffected.

If an error or defect that does not represent the absence of a warranted characteristic is due to a circumstance for which the DRRR is responsible, the DRRR shall only be liable for any damage incurred by the Customer as a result thereof per order up to a maximum amount that corresponds to the value of the order agreed in accordance with Section 2.

The materials may only be used for the corresponding scientific purpose by trained qualified personnel. The DRRR is in no case responsible and liable for used, unused or unusable samples.

The samples are intended for analytical purposes only. The DRRR assumes no liability if the samples are not used for the intended analytical purposes.

All materials are definitely not suitable for human consumption unless they are sensory materials. Oral ingestion of materials not intended for sensory purposes can be harmful to health.

In the case of sensory materials, it is the responsibility of the test persons themselves to check whether they can test the materials with regard to allergies. The ingredients of the sensory materials are declared.

All samples and packaging materials are the property of the DRRR. Samples that are used for non-destructive testing and are therefore not subject to destruction in the course of the interlaboratory comparison can be reclaimed by the DRRR upon request. The DRRR will bear the shipping costs for the return transport, if the materials are reclaimed.

The analytical properties of the material can only be guaranteed if the transport, storage and use conditions specified by the DRRR are observed.

For frozen samples, the DRRR only guarantees that the samples will be treated in accordance with the material properties stated in the data sheet. For frozen samples delivered to countries outside the EU, we can only guarantee the sample properties up to the first customs clearance point at the respective EU border.

#### § 5 Exclusion of further liability and claims

The risk (transport and remuneration risk) shall pass to the Customer as soon as the goods have left the DRRR, regardless of whether the goods are transported by the Customer's own or third-party means of transport. Claims for damages by the client are excluded. This does not apply to intent, gross negligence, breach of essential contractual obligations of the DRRR or the lack of properties guaranteed in writing.

All further claims of the client for direct and indirect damage – for whatever legal reason – in particular claims for damages due to positive breach of contract or from tort and for compensation for damage that did not occur on the object of the order itself are excluded. Irrespective of this, the client is obliged to take out the usual insurance against direct and indirect damage.

### § 6 Remuneration and payment terms

Unless otherwise stated, the prices are in euros and do not include value added tax. This will be invoiced separately at the currently applicable rate in accordance with the applicable tax regulations. The goods remain the property of DRRR until they have been paid for in full by the customer.

The fees according to the DRRR's currently valid List of Services shall apply to the calculation of the services unless a fixed price or another basis of assessment has been expressly agreed in writing. In the absence of a valid specification of services, individual contractual arrangements shall be made in each case. Advances on costs can be requested. Partial invoices can also be issued in accordance with the services

Advances on costs can be requested. Partial invoices can also be issued in accordance with the services rendered. Partial invoices need not be marked as such. The receipt of an invoice does not mean that the DRRR has fully invoiced the order.

The fees are due for payment immediately after invoicing, at the latest by the date printed on the invoice (8 days net, without deduction). Unless another arrangement has been made. If payment is made at a later date, default interest of 2% above EURIBOR will be charged on the outstanding invoice amount for the period between the due date and receipt of payment.

Objections to the invoices of the DRRR must be notified in writing within a preclusive period of 14 days after receipt of the invoice, stating reasons.

#### § 7 Confidentiality and copyright

The DRRR reserves the copyrights to the expert opinions, test results, calculations, etc. prepared by it. The DRRR and its employees may not unauthorizedly disclose or exploit business and operating relationships that come to their knowledge in the course of their work.

The DRRR may take copies for its files of written documents that have been made available to the DRRR for inspection and that are of importance for the performance of the assignment.

If the proficiency test report and the laboratory code are sent by e-mail, no guarantee can be given that confidentiality will be ensured.

#### § 8 Place of jurisdiction, place of performance, applicable law

The place of jurisdiction for the assertion of claims for both parties to the contract is Kempten, provided that the conditions according to § 38 of the German Code of Civil Procedure are met. This applies in particular to dunning proceedings.

The place of performance for all obligations arising from the contract is Kempten, the contractor's registered office.

The contractual relationship and all legal relationships are subject exclusively to the law of the Federal Republic of Germany applicable between domestic contracting parties, excluding the Uniform Law on the Sale of Goods and the United Nations Convention on Contracts for the International Sale of Goods.

#### § 9 Guarantee of services and goods from cooperation partners

For reference materials sold on behalf of our cooperation partners, the following conditions apply with regard to liability and warranty:

The liability of our cooperation partners, their legal representatives and vicarious agents is limited to cases of intent, gross negligence, absence of a warranted characteristic and breach of an obligation, the non-compliance of which would endanger the purpose of the contract. The liability for proven damages due to grossly negligent conduct is limited to the amount of the contractual remuneration; no liability is assumed for consequential damages. Liability is limited to the use of the reference materials for the purposes described in the respective certificate.

Our cooperation partners guarantee the application of scientific diligence as well as compliance with the recognized rules of technology.

Our cooperation partners are entitled to rectify any defects that occur. If the rectification of defects fails, the client is entitled to demand a reduction of the remuneration or cancellation of the contract at his discretion. Further warranty claims are excluded.

The warranty is limited to the stated expiration date of the reference materials.

This applies to: ieLab, TGZ AQS Baden-Württemberg

### **DRRR proficiency tests for pesticides**

full analyte list



Deutsches Referenzbüro für Ringversuche und Referenzmaterialien

The DRRR proficiceny tests are available for booking here: <u>Online portal (ODIN)</u> (search with keyword: "pesticide") With the DRRR proficiency tests from the pesticide program, you benefit from the following advantages, among others:

- any number of analytes from this list may be present for identification and quantification in the single PT rounds - important requirements for method validation according to SANTE 11312/2021 (1) fulfilled

- all relevant matrix groups (1.-9.) according to SANTE 11312/2021 (1) available

- use of current pesticides according to EU monitoring program

- laboratory evaluations considering the 70-120 recovery interval according to SANTE 11312/2021 (1)

- evaluation with state of the art statistics

- fast reporting after end of result submission

The proficiency test design takes into account customer requirements in collaboration with the recommendations of leading experts in pesticides analysis. The proficiency test sample design is constructed with 3 samples each, so that 2 different concentration ranges and a blank sample are covered.

1) SANTE 11312/2021 Analytical quality control and method validation procedures for pesticide residues analysis in food and feed.

1-Naphthylacetamide and 1-naphthylacetic acid (sum of 1-naphthylacetamide and 1- naphthylacetic acid and its salts, expressed as 1-naphythlacetic acid)	Flusilazole
2,4-D (sum of 2,4-D, its salts, its esters and its conjugates, expressed as 2,4-D)	Flutriafol
Abamectin (sum of avermectin B1a, avermectin B1b and delta-8,9 isomer of avermectin B1a, expressed as avermectin B1a)	Fluvalinate (sum of isomers) resulting from the use of tau-fluvalinate
Acephate	Fluxapyroxad
Acetamiprid	Folpet (sum of folpet and phtalimide, expressed as folpet)
Aclonifen	Forchlorfenuron
Acrinathrin	Formetanate: Sum of formetanate and its salts expressed as formetanate (hydrochloride)
Aldicarb (sum of aldicarb, its sulfoxide and its sulfone, expressed as aldicarb)	Fosetyl-Al (sum of fosetyl, phosphonic acid and their salts, expressed as fosetyl)
Aldrin and Dieldrin (Aldrin and dieldrin combined expressed as dieldrin)	Fosthiazate
Anthraquinone	Glyphosate
Azadirachtin	Haloxyfop (Sum of haloxyfop, its esters, salts and conjugates expressed as haloxyfop (sum of the R- and S- isomers at any ratio)) (R) (F)
Azinphos-ethyl	Heptachlor (sum of heptachlor and heptachlor epoxide expressed as heptachlor)
Azinphos-methyl	Hexachlorobenzene
Azoxystrobin	Hexachlorocyclohexane (HCH), alpha-isomer
Benzalkonium chloride (mixture of alkylbenzyldimethylammonium chlorides with alkyl chain lengths of C8, C10, C12, C14, C16 and C18)	Hexachlorocyclohexane (HCH), beta-isomer
Bifenthrin (sum of isomers)	Hexaconazole
Bromide ion	Hexythiazox (any ratio of constituent isomers)
Bromophos-ethyl	Imazalil (any ratio of constituent isomers)
Bupirimate	Imidacloprid
Buprofezin	Indoxacarb (sum of indoxacarb and its R enantiomer)

### DRRR proficiency tests for pesticides full analyte list



Deutsches Referenzbüro für Ringversuche und Referenzmaterialien

		<b>R</b> eferenzmaterialien
Captan (Sum of captan and THPI, expressed as captan)	Iprodione	
Carbaryl	lprovalicarb	
Carbendazim and benomyl (sum of benomyl and carbendazim expressed as carbendazim)	Isoprothiolane	
Carbofuran (sum of carbofuran (including any carbofuran generated from carbosulfan, benfuracarb or furathiocarb) and 3-OH carbofuran expressed as carbofuran)	Kresoxim-methyl	
Chlorantraniliprole	Lambda-cyhalothrin (includes gam	ma-cyhalothrin) (sum of R,S and S,R isomers)
Chlorat	Linuron	
Chlordane (sum of cis- and trans-chlordane)	Lufenuron (any ratio of constituen	t isomers)
Chlorfenapyr	Malathion (sum of malathion and	malaoxon expressed as malathion)
Chloridazon (sum of chloridazon and chloridazon-desphenyl, expressed as chloridazon)	Maleic hydrazide	
Chlormequat (sum of chlormequat and its salts, expressed as chlormequat-chloride)	Mandipropamid (any ratio of cons	tituent isomers)
Chlorothalonil	Mepiquat (sum of mepiquat and it	s salts, expressed as mepiquat chloride)
Chlorpropham	Metalaxyl and metalaxyl-M (metal including metalaxyl-M (sum of isor	axyl including other mixtures of constituent isomers mers))
Chlorpyrifos	Metazachlor (Sum of metabolites metazachlor)	479M04, 479M08 and 479M16, expressed as
Chlorpyrifos-methyl	Methamidophos	
Clofentezine	Methidathion	
Clomazone	Methiocarb (sum of methiocarb an methiocarb)	nd methiocarb sulfoxide and sulfone, expressed as
Clothianidin	Methomyl	
Coumaphos	Methoxyfenozide	
Cyantraniliprole	Metrafenone	
Cyazofamid	Monocrotophos	
Cyflufenamid (sum of cyflufenamid (Z-isomer) and its E-isomer, expressed as cyflufenamid)	Myclobutanil (sum of constituent i	somers)
Cyfluthrin (cyfluthrin including other mixtures of constituent isomers (sum of isomers))	Nicotine	
Cymoxanil	Novaluron	
Cypermethrin (cypermethrin including other mixtures of constituent isomers (sum of isomers))	Omethoate	
Cyproconazole	Oxamyl	
Cyprodinil	Paclobutrazol (sum of constituent	isomers)
	ł	

# DRRR proficiency tests for pesticides

full analyte list



Deutsches Referenzbüro für Ringversuche und Referenzmaterialien

Cyromazine DDT (sum of p,p'-DDT, o,p'-DDT, p-p'-DDE and p,p'-TDE (DDD) expressed as DDT)	Parathion Parathion-methyl (sum of Parathion-methyl and paraoxon-methyl expressed as
DDT (sum of p,p'-DDT, o,p'-DDT, p-p'-DDE and p,p'-TDE (DDD) expressed as DDT)	Parathion-methyl (sum of Parathion-methyl and paraoxon-methyl expressed as
	Parathion-methyl)
Deltamethrin (cis-deltamethrin)	Penconazole (sum of constituent isomers)
Diazinon	Pendimethalin
Dichlorvos	Permethrin (sum of isomers)
Dicofol (sum of p, p' and o,p' isomers)	Phenmedipham
Didecyldimethylammonium chloride (mixture of alkyl-quaternary ammonium salts with alkyl chain lengths of C8, C10 and C12)	Phenothrin (phenothrin including other mixtures of constituent isomers (sum of isomers))
Difenoconazole	Phosmet (phosmet and phosmet oxon expressed as phosmet)
Diflubenzuron	Pirimicarb
Dimethoate	Pirimiphos-methyl
Dimethomorph (sum of isomers)	Prochloraz (sum of prochloraz, BTS 44595 (M201-04) and BTS 44596 (M201-03), expressed as prochloraz)
Diphenylamine	Profenofos
Diquat	Propamocarb (Sum of propamocarb and its salts, expressed as propamocarb)
Disulfoton (sum of disulfoton, disulfoton sulfoxide and disulfoton sulfone expressed as disulfoton)	Propargite
Dithianon	Propiconazole (sum of isomers)
Dodine	Propyzamide
Emamectin B1a and its salts, expressed as emamectin B1a (free base)	Proquinazid
Endosulfan (sum of alpha- and beta-isomers and endosulfan-sulphate expressed as endosulfan)	Prosulfocarb
Endrin	Prothioconazole: prothioconazole-desthio (sum of isomers)
Epoxiconazole	Pyraclostrobin
Ethephon	Pyridaben
Ethion	Pyrimethanil
Ethirimol	Pyriproxyfen
Ethofumesate (Sum of ethofumesate, 2-keto-ethofumesate, open-ring-2-keto- ethofumesate and its conjugate, expressed as ethofumesate)	Quinalphos
Ethoprophos	Quintozene (sum of quintozene and pentachloro-aniline expressed as quintozene)

# DRRR proficiency tests for pesticides

full analyte list



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Spinosad (spinosad, sum of spinosyn A and spinosyn D)
Spirodiclofen
Spiromesifen
Spirotetramat and spirotetramat-enol (sum of), expressed as spirotetramat
Spiroxamine (sum of isomers)
Sulfoxaflor (sum of isomers)
Tebuconazole
Tebufenozide
Tebufenpyrad
Tefluthrin (tefluthrin including other mixtures of constituent isomers (sum of isomers))
Terbuthylazine
Tetraconazole
Thiabendazole
Thiacloprid
Thiamethoxam
Thiophanate-methyl
Triadimenol (any ratio of constituent isomers)
Triazophos
Tricyclazole
Trifloxystrobin
Triflumizole: Triflumizole and metabolite FM-6-1(N-(4-chloro-2-trifluoromethylphenyl)- n-propoxyacetamidine), expressed as Triflumizole
Triflumuron
Trinexapac (sum of trinexapac (acid) and its salts, expressed as trinexapac)
Vinclozolin
Zoxamide



Deutsches Referenzbüro für Ringversuche und Referenzmaterialien

# **Material testing**

# Product catalogue 2024 / 2025



Your laboratory quality

### In the testing fields:

- Thermoplastics
- Rubber and TPE
- Plastic products such as
   Plastic films
  - Plastic pipes
  - Foams
  - Geosynthetics
  - Composites
- Plastic paintwork
- Plastic electroplating
- Metals and wheels
- Metal paintwork
- Technical Cleanliness
- Textiles
- Leather
- Personal protective equipment (PPE)
- Building materials
- Paper | board
- Vibration | Shock
- Electromagnetic
- compatibility (EMC)

Image source: iStock.com/JazzIRT

# Index

General information	4
The DRRR	4
News	5
ODIN - proficiency testing online	6
Proficiency testing organsation	7
Benefits of proficiency testing	8
Statistical methods	9
z'-score > 2: What to do?	10

11

Profciency testing material testing

### **PROFICIENCY TESTING**

JFICIENCT TESTING	FROFICIENCI TESTING	
Thermoplastics 12	Thermoplastics	12
mensions of test specimens 12	Dimensions of test specimens	12
Mechanical properties 12	Mechanical properties	12
en injection moulding/cutting 13	Specimen injection moulding/cutting	13
Polyamide 6 and 6.6 13	Polyamide 6 and 6.6	13
sity   hardness   ash content 14	Density   hardness   ash content	14
Rheological properties 14	Rheological properties	14
Thermal properties 15	Thermal properties	15
Burning behaviour 16	Burning behaviour	16
Electrical properties 16	Electrical properties	16
Emissions 17	Emissions	17
Infrared spectroscopy 17	Infrared spectroscopy	17
er content   water absorption 17	Water content   water absorption	17
Surfaces 18	Surfaces	18
Paintwork 19	Paintwork	19
Evaluation of samples 19	Evaluation of samples	19

- Evaluation of samples 19
- Light fastness / Exposure tests 20
  - Electroplating 20

### **PROFICIENCY TESTING**

Metals / wheels	21
Corrosion testing	21
Paintwork	21

- X-ray fluorescence analysis (RFA) 21
  - Technical Cleanliness 22

### **PROFICIENCY TESTING**

Rubber and TPE

23

### **PROFICIENCY TESTING**

Plastic products	25
Plastic films	25
Plastic pipes / pipe materials (PE)	25
Foams	26
Paper   Board	27
Fibre-reinforced plastics	28
Geosynthetics	29

### PROFICIENCY TESTING

<b>Textiles / Leather</b>	30
Personal protective equipment	

- Fabric properties 30
- Automotive testing (textile) 31
- Determination of fibre blends 31
  - Functional properties 32
    - Individual fibres 32
    - Colour fastness 33
      - Leather 34
    - Coated fabrics 35
    - Microbiology textile 35
- Personal protective equipment 36

# Index

PROFICIENCY TESTING	38
Environmental testing	38
Electromagnetic compatibility	38

### **PROFICIENCY TESTING**

Building materials	41
Hardened concrete	41
Fresh concrete	41
Cement	41
Mortar for masonry	42
Screed mortar	42
Masonry units	42
Mineral building materials	42
Aggregates	43
Bituminous mixtures & Bitumen	43
Thermal insulating material	44
Other insulating material	44

### Registration form45

<b>REFERENCE MATERIAL</b>	
Material testing	46
Additional information	47
Quality management / assurance	47
Seminars / training / consulting	48
Sales terms and delivery conditions	50
General terms and conditions	51

Deutsches Referenzbüro für Ringversuche und Referenzmaterialien GmbH (DRRR GmbH)

#### Proficiency testing provider

The DRRR offers laboratories from the processing industry as well as official and private laboratories all aspects of quality assurance from one single source. Our focus is on food, consumer goods, packaging, building materials, plastics (polymers) and textiles, as well as microbiological analysis in these categories.

#### Accreditation ISO/IEC 17043:2010 (A2LA)

The DRRR is an accredited proficiency testing provider by A2LA according to ISO/IEC 17043:2010. The accreditation is only valid for the matrices/parameters listed on the A2LA scope of accreditation certificate [#5494.01].

Whether a proficiency test is covered or not covered by the scope of accreditation by A2LA can be viewed in our online portal (ODIN).

### Accreditation DIN EN ISO/IEC 17043:2010 (DAkkS)

The DRRR is an accredited proficiency testing provider by DAkkS according to DIN EN ISO/IEC 17043:2010. The accreditation is valid only for the scope listed in the annex of the accreditation certificate [D-EP-17063-01-00].

Whether a proficiency test is covered or not covered by the scope of accreditation by DAkkS can be viewed in our online portal (ODIN).

#### **Reference material producer**

We offer many certified reference materials as well as advise on quality matters and quality assurance training in the laboratory and the production.

### **Customer support**

We provide advice to our customers in all question of validation of chemicalphysical, microbiological, organoleptic and physical-mechanical analysis or statistical questions. Deutsches Referenzbüro für Ringversuche und Referenzmaterialien

#### More than 500 PT's in 2023

### Accredited PT-provider



High-quality reference material

Any time competent contact persons

More than 50 new Proficiency tests:

We have added **more than 30 new Proficiency tests** to the material testing calalogue 2024/2025 in the follwoing testing fileds:

### Test methods Volkswagen AG

The Volkswagen AG qualification program will continue in 2024, and DRRR is the official proficiency test provider for this program.

These cover a wide range of subject areas:

- Leather
- Textiles (upholstery fabrics)
- Foams
- Plastics
- Plastics Electroplating
- Plastics surfaces
- Rubber / O-rings
- Burning behavior

### • Bituminous mixture | Bitumen

New proficiency tests have been included on the following topics:

- Bulk density
- Needle penetration
- Softening point
- Soluble binder content

### Environmental testing | EMC

In cooperation with the consulting company 4TIERS GmbH from Hamburg, we have further developed our proficiency testing program on the topic of environmental simulation and EMC.

Environmental simulation:

For 2024, the focus will be on the following test areas:

- Vibration / Shock
- Temperature change and damp heat

The test specimen will be shipped from laboratory to laboratory. This means that all laboratories perform the tests on the same specimen.

<u>Electromagnetic compatibility (EMC):</u> This area has been greatly reorganized for 2024 and methods have been combined. This creates an even more attractive offer for our customers. The area is further subdivided into the following test areas:

- Radiated emission / Susceptibility
- Conducted Emission / disturbance

### Spot developments

Through specific further developments, we offer even better possibilities for laboratory comparison in many test areas. These include:

- Cleanliness (gravimetric) VDA 19.1, ISO 16232
- Textiles Burning behaviour vertically oriented specimens ISO 6941
- Earplugs Sound attenuation EN 352-2
- Resistance of materials to penetration by liquids ISO 6530
- Thermal insulating products water vapour transmission EN 12086

### **Compact registration forms**

Besides the comfortable online registration in ODIN you can also use the registration forms (pdf) for different testing fields. Please visit our website.

www.DRRR.de

# **ODIN - proficiency testing online**

Simply brilliant, your proficiency testing with ODIN (Online Data Information Network).	€
<ul> <li>Fast and easy online registration / online announcement in our online catalogue</li> </ul>	Book Ringtrials Online
<ul> <li>Direct management and booking of the proficiency testing</li> </ul>	
<ul> <li>Overview about the registered proficiency testing schemes</li> </ul>	Proficiency testing catalog
• Fast and secure submission of your results via ODIN	
<ul> <li>Online access to individual customers reports and certificates</li> </ul>	Enter Results Online
<ul> <li>Supervisor rights available to overview all PTs of a multi-site company</li> </ul>	
• Saving of costs through booking and submission of your results via ODIN	Booked proficiency testings
Secure payment with IRIS (Internet Remuneration Information Service).	Download Reports and Certificates
<ul> <li>Easy and safe payment by credit card</li> </ul>	
• Overview about all invoices	Booked proficiency testings

You can also pay your invoice via banktransfer or bank check.

• Fast and secure online access

6

# **Proficiency testing organisation**

· A precise planning and organisation of each Planning proficiency testing round · 2 weeks before we will dispatch the samples Announcement you will get an announcement with the proficiency testing details · According to our requirements, you will receive Sample shipment suitable sample material for the respective proficiency testing scheme. We reserve the right to have an external subcontractor carry out the sample purchase and any necessary testing. · After receiving the samples you will have a Analysis period of 4-8 weeks for analysing · Mail back the results via internet by using our **Enter Results (ODIN)** result sheets in an Excel file or fill out our result sheets online in ODIN • At the latest 4-8 weeks after the deadline you **Report and certificate** will get the report (optional by login in ODIN, as hardcopy by regular mail or as pdf-file by e-mail) incl. participation certificate with overview of your lab performance · After the proficiency testing we can offer you **Reference material** reference materials · Possibility to perform a bilateral proficiency **Bilateral proficiency testing** 

testing (bPT)

Why take part in proficiency testing?

• Participation in proficiency testing schemes is required by international standards or national facilities, organizations and customers

• Participants can compare, assure and improve their own performance and quality against other laboratories worldwide

• Laboratories can recognize how well they have been completed with the applied method compared to the other laboratories

- · Saving on the costs of testing
- Unquestionable lab performance towards customers, authorities and certification authorities
- Saving on the costs of lab development and maintenance
- Saving on the costs of lab development and maintenance
- Saving on production costs by avoiding waste of raw material

Your benefits in DRRR proficiency testing schemes

• Objective and independent impression of your quality and your performance of your routine testing method compared to the other participating laboratories

• Saving the costs, because you have the opportunity to analzye more samples and more parameters in one proficiency testing

• External demonstration of your performance with the results of the proficiency testing

• Build up of your own external quality assurance system with our statistical tools (contains statistical control charts, MS-Excel evaluation files and reference materials). With these tools incorporated your external quality assurance rays unmatched confidence

• Detailed planning and organization of your proficiency testing and an easier, faster and better communication with us



Image source: iStock.com/3dts

# **Statistical methods**

We work according to:

- ISO Guide 31 / 35
- DIN EN ISO 17034
- DIN EN ISO/IEC 17020 / 17025 / 17043
- ISO 13528

Laboratory performance:

by calculation of the following paramters:

- z-score
- z'-score
- CRD-Wert

Statistical models:

Depending on the type of the distribution of the data, different statistic models are used:

- Conventional statistics (all values)
- Conventional statistics (no outliers)

Robust statistics
 (Hampel estimator, Q-method)

• Robust statistics (Median, MAD/nIQR)

• Expert laboratory (expert decision)

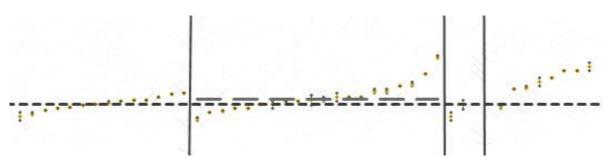
Homogenous and stable sample material

Calculation of precision data acc. to ISO 5725-2 in many proficiency testing schemes

Detailed information can also be found in our statistical protocol.

Method-specific evaluation according to the reference method (if available)

Additional extended method evaluation (in case data are available)



You are not satisfied with your laboratory performance: What can you do?

Due to your showed laboratory performance you have been asked by the accreditation body, the monitoring authority or your customer to initiate measures to improve your laboratory performance.

These measures are often connected with considerable efforts in the laboratory and you only have a short time frame. In many cases the proof of a successful measure processing, by participation in a new proficiency testing round, is only possible in the following year. Until now it does not exist a possibility for a spontaneous performance review to equalize a previous unsatisfactory proficiency testing result. New: The bilateral proficiency testing (bPT)!

You can book and perform individually and flexibly the bilateral proficiency testing during a determined time period. You receive a proficiency testing sample for

analyzing. You submit the results of the testing. After that you will get your proof of performance as a z'-score calculation in the form of a certificate within 1 - 2 weeks.

The performance evaluation refers to the previous regular proficiency testing, so that you can connect the bPT to the regular proficiency testing round. The used sample material is derived from a previous proficiency testing round and provides the possibility of a comparable performance evaluation with the regular proficiency testing.

Your terms and conditions:

Participation in a bPT is open to all laboratories. Prior participation in our regular proficiency tests is not necessary.

The report of this proficiency testing is not older than ten weeks. You register within these ten weeks for the bPT and the performance is confirmed by the DRRR. The testing period is dependent on the technical factors (parameter, matrix etc.) and will be agreed individually\*. When this time is over after the sample shipment and you do not have sent us your results in this time, we can not evaluate your results and issue a certificate for you.

(\* normally not longer than 1 - 2 weeks) The bPT is not in the scope of accreditation of the DRRR. The realization of the bPT depends on the availability of the material.

#### Costs bPT

The costs are identical to the costs of the respective proficiency test from our standard program (see ODIN) plus shipping costs.

Alternative you can also order reference material.

### **Special characteristics**

For most of the Proficiency testing schemes the participants get 2 different samples on different testing levels. So we can ensure that the laboratory has competence for a wide range of test results.

The testing levels are on industry standard and reflect the laboratory routine.

#### **Cooperation partners**

For each testing field of the material testing (plastics, textiles, building material, paper) we work together with accredited and established laboartories and experts from the industries they serve. So we can ensure to provide practical testing material. You can find a list of our partners on our homepage.

#### **Reports easy-to-understand**

A clear presentation of our test results and your laboratory performance is important for us. Despite the huge volume of data and many statistical values we present the results easy-tounderstand and transparent in our reports and certificates.

### Precision data acc. to ISO 5725-2

By using our market-leading statistical evaluation we calculate precision data in accordance with ISO 5725-2 for each proficiency test of the material testing. These data are important for the laboratories and can be used in the every day work.

#### **Technical assistance**

You can contact our technical experts at any time e.g. the participant sees potential for improvement in the lab performance. It is also possible to order our reference materials for additional testing. Different testing levels

### **Competent partners**

Reports easy-to-understand

Market leading statistical evaluation

**Technical assistance** 

# Proficiency tests - Thermoplastics

For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (<u>www.DRRR.de</u>). You can also use the registration forms on page 45 of this catalogue.

### **Plastics - Dimensions of test specimens**

Art. No.	Standard	Proficiency testing type <sup>[A]</sup>	period	To view pricing information visit our online Portal:
2010978	not specified	Width and Thickness of injection moulded specimen (type 1A) e.g. with caliper	Apr-24	Login or register

## **Plastics - mechanical properties**

Art. No.	Standard	Proficiency testing type <sup>[A]</sup>	period
2010988	ISO 527-1/-2	<u>Tensile test:</u> - Modulus of Elasticity - Tensile strength/Stress at Yield - Elong. at Tensile strength / Elong. at Yield	Apr-24
2010886	ASTM D638	Tensile test (modulus, strength, elongation)	Apr-24
2010765	ISO 527-1/-2	Tensile Test at +80°C	Apr-24
2010766	ISO 527-1/-2	Tensile Test at -30°C	Apr-24
2010881	ISO 899-1	Tensile creep test	Apr-24
2010004	ISO 16770	Full-notch creep test [FNCT]	Apr-24
2010116	VDA 287	High Speed Tensile Test by using a servo-hydraulic test instrument	Apr-24
2010989	ISO 178	Flexural test: - Flexural Modulus - Flexural stress at conventional deflection - Flexural Strength - Elongation at Flexural Strength	Apr-24
2010888	ASTM D790	Flexural test (modulus, strength, elongation)	Apr-24
2010756	ISO 604	Compression test (strength, elongation)	Apr-24
2010773	ISO 179-1/1eU	Charpy unnotched impact properties +23 °C	Apr-24
2010782	ISO 179-1/1eA	Charpy notched impact properties +23 °C	Apr-24
2010824	ISO 179-1	Charpy impact properties -30 °C	Apr-24
2010774	ISO 180	Izod impact properties +23 °C	Apr-24
2010006	ASTM D256	Izod impact properties +23 °C	Apr-24

[A] = For accredited and non-accredited status please see Online portal (ODIN)

12

Art. No.	Standard	Proficiency testing type <sup>[A]</sup>	period	To view pricing information visit our online Portal:
2010884	DIN 53435	Impact test on dynstat test specimens	Apr-24	Login or register
2010885	DIN 53435	Bending test on dynstat test specimens	Apr-24	
2010977	ISO 8256	Tensile-impact test (type 1, met. A)	Apr-24	
2010882	ISO 6603-2	Instrumented puncture impact test	Apr-24	
2010883	ASTM D3763	Instrumented puncture impact test	Apr-24	
2010757	ISO 6721-5	DMA - Temperature sweep and Tg	Apr-24	

### **Plastics - mechanical properties**

### Specimen injection moulding

Art. No.	Standard	Proficiency testing type <sup>[A]</sup>	period	
2010785	ISO 527-1/-2	Specimen injection moulding (type 1A) and tensile test	Apr-24	
2010786	ISO 178	Specimen injection moulding (type 1A) and flexural test	Apr-24	
2010787	ISO 179-1	Specimen injection moulding (type 1A) and Charpy impact test	Apr-24	

# **Cutting of specimen**

Art. No.	Standard	Proficiency testing type <sup>[A]</sup>	period	
2010813	ISO 527-1/-2	Cutting of specimen (type 1B) and tensile test	Apr-24	
2010814	ISO 527-1/-2	Cutting of specimen (type 5A) and tensile test	Apr-24	

# Plastics - polyamide 6 and 6.6

Art. No.	Standard	Proficiency testing type <sup>[A]</sup>	period	
2010815	ISO 527-1/-2	Tensile test	Apr-24	
2010816	ISO 178	Flexural test	Apr-24	
2010817	ISO 179-1	Charpy flexural impact test	Apr-24	

[A] = For accredited and non-accredited status please see Online portal (ODIN)

### Plastics - density | hardness | ash content

Art. No.	Standard	Proficiency testing type <sup>[A]</sup>	period	To view pricing information visit our online Portal:
2010769	ISO 1183-1 and	Density I	Apr-24	Login or register
2010984	ASTM D792	Density II	Oct-24	
2010741	ISO 1172 and ISO 3451-1	Ash content	Apr-24	
2010651	ASTM G5630	Ash content [NEW!]	Apr-24	
2010742	ISO 868	Hardness Shore D	Apr-24	
2010811	ISO 2039-1	Ball indentation hardness	Apr-24	

### **Plastics - rheological properties**

Art. No.	Standard	Proficiency testing type <sup>[A]</sup>	period
2010825	ISO 1133-1/-2 and	Melt flow/volume rate (MFR/MVR) I	Mar-24
2010008	ASTM D1238	Melt flow/volume rate (MFR/MVR) II	Oct-24
2010861	ISO 1133	Melt flow/volume rate MFR/MVR (high temperature > 300°C)	Mar-24
2010213	ISO 1133-2	Melt flow/volume rate (MFR/MVR) of moisture sensitive materials	Mar-24
2010795	ISO 307	Viscosity number (sulfuric acid)	Mar-24
2010857	ISO 307	Viscosity number (m-cresol)	Mar-24
2010858	ISO 307	Viscosity number (formic acid)	Mar-24
2010859	ISO 1628-5	Viscosity number of PBT	Mar-24
2010788	ISO 11443	Fluidity of plastics - capillary rheometers	Mar-24
2010789	ISO 6721-10	Complex shear viscosity (parallel-plate)	Mar-24

[A] = For accredited and non-accredited status please see Online portal (ODIN)

14

15

For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (<u>www.DRRR.de</u>). You can also use the registration forms on page 45 of this catalogue.

Art. No.	Standard	Proficiency testing type <sup>[A]</sup>	period	To view pricing information visit our online Portal:
2010743	ISO 11357-3 and	DSC-Analysis: Melting point and -enthalpy I	Mar-24	Login or register
2010985	ASTM D3418	DSC-Analysis: Melting point and -enthalpy II	Oct-24	
2010854	ISO 11357-2 ASTM D3418	DSC-Analysis: Glass transition temperature	Mar-24	
2010855	ISO 11357-6 ASTM D3895	DSC-Analysis: Oxidation Induction time (OIT)	Mar-24	
2010297	ISO 11357-4	DSC-Analysis: specific heat capacity	Mar-24	
2010745	ISO 11358	Thermogravimetry (TGA) - filler content	Mar-24	
2010653	ASTM E1131	Thermogravimetry (TGA) - filler content [NEW!]	Mar-24	
2010303	ISO 6964	Carbon black content - method A, B1, B2, C	Mar-24	
2010758	ISO 11359	Coefficient of linear thermal expansion	Apr-24	
2010775	ISO 306	Vicat softening temperature (VST)	Apr-24	
2010911	ASTM D1525	Vicat softening temperature (VST)	Apr-24	
2010790	ISO 75	Temperature of deflection under load	Apr-24	
2010791	ASTM D648	Deflection temperature under flexural load	Apr-24	

### **Plastics - thermal properties**

[A] = For accredited and non-accredited status please see Online portal (ODIN)

Art. No.	Standard	Proficiency testing type <sup>[A]</sup>	period	To view pricing information visit our online Portal:
2010819	FMVSS 302 DIN 75200	Burning rate	Mar-24	Login or register
2010862	UL 94 HB EN 60695-11-10	Burning rate	Mar-24	
2010863	UL 94 V EN 60695-11-10	Burning rate	Mar-24	
2010655	TL 1010	Burning behavior	Jan-24	
2010659	TL 1011	Flammability	Mar-24	
2010547	IEC 62631-3-2, VDE 0307-3-2	Surface resistance	May-24	
2010549	IEC 62631-3-1, VDE 0307-3-1	Volume resistivity	May-24	
2010864	EN 60695-2-13	Glow-wire ignition temperature (GWIT)	Mar-24	
2010979	EN 60112	CTI – Tracking	Mar-24	

### **Plastics - burning behaviour / Electric**

[A] = For accredited and non-accredited status please see Online portal (ODIN)

16

Art. No.	Standard	Proficiency testing type <sup>[A]</sup>	period	To view pricing information visit our online Portal:
2010851	VDA 270 PV 3900	Odour test	Mar-24	Login or register
2010555	GMW 3205	Odour test [NEW!]	Mar-24	
2010869	VDA 275 PV 3925	Formaldehyde emission	Mar-24	
2010843	VDA 277 PV 3341	Total carbon emission	Mar-24	
2010870	VDA 278	Thermal desorption analysis	Mar-24	
2010797	DIN 75201	Fogging/Method A	Mar-24	
2010557	GMW 3235	Fogging/Method A	Mar-24	
2010798	DIN 75201 PV 3015	Fogging/Method B	Mar-24	
2010559	GMW 3235	Fogging/Method B	Mar-24	

### **Plastics - emissions**

## **Plastics - Infrared spectroscopy**

Art. No.	Standard	Proficiency testing type <sup>[A]</sup>	period	
2010818	not specified	Quantitative infrared spectroscopy (FTIR) e.g. VA content of EVA	Mar-24	

# From our catalogue of consumer goods we recommend the following proficiency tests:

2010210	not specified	Identification of plastic granulates	Mar-24	
2010167	not specified	Identification PA types (e.g. PA6, PA 11)	Mar-24	

# **Plastics - water content | water absorption**

Art. No.	Standard	Proficiency testing type <sup>[A]</sup>	period	
2010793	ISO 15512	Water content (Karl-Fischer)	Apr-24	
2010865	ISO 15512	Water content (Aquatrac®) - CaH2-method	Apr-24	
2010796	ISO 62	Water absorption	Apr-24	

[A] = For accredited and non-accredited status please see Online portal (ODIN)

Art. No.	Standard	Proficiency testing type <sup>[A]</sup>	period	To view pricing information visit our online Portal:
2010722	ISO 2813	Gloss reading at 20°, 60°, 85°	Mar-24	Login or register
2010649	ASTM D523	Gloss reading at 20°, 60°, 85° [NEW!]	Mar-24	
2010821	ISO 7724 DIN 53236-A	Colour measurement (8°/d) - $\Delta E$ , $\Delta L$ , $\Delta a$ , $\Delta b$	Mar-24	
2010771	DIN 53236-B	Colour measurement (45°/0) - $\Delta E$ , $\Delta L$ , $\Delta a$ , $\Delta b$	Mar-24	
2010822	PV 3952	Scratch resistance	Mar-24	
2010823	ISO 1518	Erichsen-Hardness pencil (in style of ISO 1518, hand-operated devices can also be used)	Mar-24	
2011049	ISO 22557	Scratch test using a spring-loaded pen [NEW!]	Mar-24	
2010871	ISO 19403-2	Surface energy (contact angle)	Mar-24	
2010893	ISO 9352	Abrasion by abrasive wheels (Taber)	Mar-24	
2010981	PV 3987	Micro scratch resistance high gloss	May-24	
2010699	PV 3974	Mar Resistance of Surfaces	Apr-24	
2010719	PV 3991	Skin abrasion test	Apr-24	
2010693	PV 3966	Stress Whitening Properties (Ball Drop Test)	Apr-24	
2010717	PV 3989	Ball Drop Test	Apr-24	
2011205	ISO 8296 ASTM D2578	Plastic film - Wetting tension (red test ink) <b>[NEW!]</b>	May-24	
2011206	ISO 8296 ASTM D2578	Plastic surface - Wetting tension (green test ink) [NEW]	May-24	

### **Plastics - surfaces**

18

[A] = For accredited and non-accredited status please see Online portal (ODIN)

Art. No.	Standard	Proficiency testing type <sup>[A]</sup>	period	To view pricing information visit our online Portal:
2010972	ISO 2409	Cross cutting test	May-24	Login or register
2010539	PV 3964	Cream resistance	May-24	
2010849	DBL 5425	Multiple stone impact test	May-24	
2010221	ISO 20567-1	Multiple stone impact test	May-24	
2011042	SAE J400 (method C)	Chip Resistance [NEW!]	May-24	
2010845	DBL 5425	Steam jet test	May-24	
2010703	TL 211 (DIN 16925-C)	Pressure washer test	May-24	
2011045	IEC 60068-2-70	Abrasion caused by rubbing [NEW!]	May-24	
2010217	PV 1200	Environmental Cycle Test (8 cycles) (e.g. delamination, change to appearance)	May-24	
2010541	ISO 2808 (6A-Ver. 1)	Film thickness - Cross sectioning by grinding	May-24	
2010641	ISO 2808 (6A-Ver.2)	Film thickness - Cross sectioning by cutting [NEW!]	May-24	
2010543	DBL 5425 (A.1.17)	Wash scratch resistance (Amtec-Kistler)	May-24	
2010545	DBL 5425 (A.1.17)	Wipe scratch resistance (Crockmeter)	May-24	
2010721	PV 3.3.3	Scratch Resistance of Clear Coats	May-24	

### **Plastics - paintwork**

## Assessing - Change in colour / Staining / Blistering:

Art. No.	Standard	Proficiency testing type <sup>[A]</sup>	period	
2010026	ISO 105 A02 ISO 105 A03	Visual evaluation of colour charts (grey scale)	Apr-24	
2010919	ISO 105 A04 ISO 105 A05	Instrumental assessment of colour charts [NEW!]	Apr-24	
2010701	ISO 4628-2	Degree of blistering (quantity / size) on photos using the pictorial standards	Apr-24	
2011046	ISO 4628-3	Degree of rusting [NEW!]	Apr-24	

[A] = For accredited and non-accredited status please see Online portal (ODIN)

## Proficiency tests - Thermoplastics

For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (<u>www.DRRR.de</u>). You can also use the registration forms on page 45 of this catalogue.

### **Plastics - Light fastness / Exposure tests**

Art. No.	Standard	Proficiency testing type <sup>[A]</sup>	period	To view pricing information visit our online Portal:
	Evaluation: C	Color change with grey scale and instrumentell		
2010799	ISO 105-B06	Light fastness <sup>[P]</sup>	Apr-24	Login or register
2010667	PV 1303	Xenon Arc Light Aging <sup>[P]</sup>	Jan-24	
2010867	ISO 4892-2	Light fastness - Xenon Arc light (cycle 1) <sup>[P]</sup>	Apr-24	
2010866	ASTM G155	Light fastness - Xenon Arc light (cycle 1) <sup>[P]</sup>	Apr-24	
2010868	ISO 4892-3 ASTM G154	Exposure to laboratory light - Fluorescent UV lamps <sup>[P]</sup>	Apr-24	
2010128	PV 3929	Weathering (Dry, Hot) - Kalahari test <sup>[P]</sup>	Apr-24	
2010130	PV 3930	Weathering (Humid, Hot) - Florida test <sup>[P]</sup>	Apr-24	
2010846	DIN 75220 D-IN1-T VDA 230-219	Sunlight simulation <sup>[P]</sup>	Apr-24	
	Evaluation: C	Change of mechanical properties		
2010016	ISO 4892-2	Light fastness - Xenon Arc light (cycle 1)	Apr-24	

**[P]** = return of the tested samples is required

## **Plastics - electroplating:**

Art. No.	Standard	Proficiency testing type <sup>[A]</sup>	period
2010239	ISO 1456	Coating thickness (Cu / Ni / Cr) Microscopical method (ISO 1463) and Coulometric method (ISO 2177) possible	May-24
2010241	EN 16866 ASTM B764	Individual coating thicknesses (nickel), potential differences between nickel layers	May-24
2010243	DIN 53100	Number of micropores / microcracks in chromium coating	May-24
2010219	DBL 1665	Corrosion testing CASS (48 h) including evaluation of the samples	May-24
2010661	PV 1058	Micro-crack pattern	May-24
2010663	PV 1063	Micropore Density	May-24
2010665	PV 1065	Potential Differences and Layer Thicknesses of Nickel	Sep-24

[A] = For accredited and non-accredited status please see Online portal (ODIN)

## 21 **Proficiency tests - Metals**

For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (<u>www.DRRR.de</u>). You can also use the registration forms on page 45 of this catalogue.

## Metals - corrosion testing:

Art. No.	Standard	Proficiency testing type <sup>[A]</sup>	period	To view pricing information visit our online Portal:
	Reference spe	ecimens and painted plates		Login or register
2010820	ISO 9227 point 5.2.2	Corrosion testing NSS: reference specimen 48h / painted plate 480h (e.g. delamination, corrosion, blistering)	Apr-24	
2010018	ISO 9227 point 5.2.4	Corrosion testing CASS: reference specimen 24h / painted plate 240h (e.g. delamination, corrosion, blistering)	Apr-24	
	Reference spe	ecimen (mass loss)		
2010561	ISO 9227 point 5.2.3	Corrosion testing AASS	Apr-24	
2010020	ASTM B117	Salt Spray test	Apr-24	
2010022	GMW 14872	Exterior Cyclic Corrosion	Apr-24	
	Steel substrate	es		
2010921	DBL 7381.20	Corrosion cycle test (CCT 2 steel) (e.g. corrosion, cross cut, scratch test)	May-24	
2011043	PV 1210	Corrosion Test	May-24	
2011044	ISO 11997-1 (Zyklus A)	Corrosions testing - Resistance to cyclic corrosion conditions [NEW!]	May-24	
2011047	ISO 22479	Saturated atmosphere in the presence of SO2 (Kesternich test) [NEW!]	May-24	

### Metals - paintwork

Art. No.	Standard	Proficiency testing type <sup>[A]</sup>	period
2010024	ISO 6270	Condensation atmosphere (CH) Resistance to humidity	Mar-24
2010295	ISO 2360	Coating thickness Amplitude-sensitive eddy-current method	May-24
2010615	ISO 2178	Coating thickness - Magnetic method	May-24

### Metals - X-ray fluorescence analysis (XRF)

Art. No.	Standard	Proficiency testing type <sup>[A]</sup>	period	
2010171	not specified	Determination of elements by XRF, e.g. nickel, copper, zinc, lead	Jul-24	
2010371	ISO 3497	Coating thickness X-ray spectrometric method	Mar-24	

## Metals - surfaces Technical Cleanliness of components

Art. No.	Standard	Proficiency testing type <sup>[A]</sup>	period	To view pricing information visit our online Portal:
2011172	VDA 19.1	Cleanliness analysis (gravimetric assessment) - Calibration standard (aluminum particles)	May-24	Login or register
	ISO 16232	<ul> <li>Blank value determination before analysis</li> <li>Liquid extraction (Spray, Ultrasonic)</li> <li>Filtration and gravimetric analysis</li> </ul>	,	

[A] = For accredited and non-accredited status please see Online portal (ODIN)

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### **Rubber and TPE**

Art. No.	Standard	Proficiency testing type <sup>[A]</sup>	period	To view pricing information visit our online Portal:
2010727	ISO 2781	Density of rubber	May-24	Login or register
2010728	ISO 37	Tensile test (specimen type2/S2)	May-24	
2010729	ISO 37	Tensile test (specimen type3/S3A)	May-24	
2011033	VDI 2019	Adhesion of thermoplastic elastomers (TPE) on substrates [NEW!]	May-24	
2010894	ASTM D412	Tensile test	May-24	
2010897	ISO 34-1	Tear strength - Trouser test piece	May-24	
2010761	ISO 34-1	Tear strength - Angle test piece (without nick)	May-24	
2010760	ISO 34-1	Tear strength - Angle test piece (with nick)	May-24	
2010895	ISO 815	Compression set	May-24	
2010900	ISO 815-2	Compression set at lower temperature	May-24	
2010896	ISO 2285	Tension set	May-24	
2010731	ISO 868 ISO 48-4	Hardness Shore A	May-24	
2010898	ASTM D2240	Hardness Shore A	May-24	
2010748	ISO 48-2	IRHD-Hardness - method M	May-24	
2010899	ISO 48-2	IRHD-Hardness - method N	May-24	
2010267	ISO 48-4	Hardness Shore D	May-24	
2010762	ISO 4662	Rebound resilience	May-24	
2010763	ISO 4649	Abrasion resistance	May-24	
2010746	ISO 11357-2	Glass transition of rubber	May-24	
2010875	ISO 1407	Solvent extract of rubber	May-24	
2010764	ISO 289-1	Mooney viscosity	May-24	
2010749	ISO 1817	Increase in mass (liquid B)	May-24	
2010750	ISO 11358	Thermogravimetry (TGA) - black carbon content	May-24	

Art. No.	Standard	Proficiency testing type <sup>[A]</sup>	period	To view pricing information visit our online Portal:
2010269	ISO 1431-1	Resistance to ozone cracking	May-24	Login or register
2010508	ISO 188	Accelerated ageing / heat resistance	May-24	
2010671	PV 3305, PV 3316	Ozone Resistance - Permanent Deformation	Sep-24	
2010673	PV 3307	Plastic and Elastic Deformability	May-24	
2010675	PV 3330	O-Rings - Compression Set	May-24	
2010697	PV 3973	O-Rings - Tensile test	May-24	
2010677	PV 3366	Seals - Wear Characteristics of Flocking	May-24	
2010715	PV 3988 (4.1)	Seals - Anti-Friction Coating - Coating thickness	Sep-24	

### **Rubber and TPE**

[A] = For accredited and non-accredited status please see Online portal (ODIN)

Art. No.	Standard	Proficiency testing type <sup>[A]</sup>	period	To view pricing information visit our online Portal:
2010777	ISO 527-1/-3	Tensile Test	Mar-24	Login or register
2010970	ISO 7765-1	Impact resistance – free-falling dart	Mar-24	
2010878	ISO 6383-1	Tear resistance - trouser tear method	Mar-24	1
2010838	ISO 6383-2 ASTM D1922	Tear resistance - Elmendorf method	Mar-24	
2010779	ISO 4593	Film thickness	Mar-24	
2010780	ISO 8295	Coefficients of friction (static/kinetic)	Mar-24	
2010879	ISO 11339	T-peel test	Mar-24	••••••••
2010880	DIN 55529	Sealed-seam strength	Mar-24	Migration testing:
2010847	ISO 15106-3	Water vapour transmission rate	Mar-24	Proficiency Tests in the field of overall and specific migration can
2010844	ISO 15105-2	Gas transmission rate	Mar-24	be found in the catalogue
2010518	ISO 15106-2	Water vapour transmission rate (IR sensor) [NEW!]	Mar-24	"consumer goods" or the online catalogue
2010781	ISO 14782	Transparency/Haze	Mar-24	
2010012	DIN 55543-5	Adhesion strength	Mar-24	
2010312	not specified	Identification of multi layer films	Mar-24	
2010115	not specified	Identification of mono layer films	Sep-24	
2011205	ISO 8296 ASTM D2578	Wetting tension (red test ink)	May-24	

### **Plastic films**

## **Plastic pipes / pipe materials (PE)**

Art. No.	Standard	Proficiency testing type <sup>[A]</sup>	period
2010792	ISO 1167-1/-2	Resistance to internal pressure	Mar-24
2010890	ISO 17454	Adhesion of multilayer pipes	Mar-24
2010891	ISO 9969	Thermoplastics pipes - ring stiffness	Mar-24
2010980	not specified	Wall thickness of plastic pipes	Mar-24
2010004	ISO 16770	Full-notch creep test [FNCT]	Apr-24
2010118	ISO 18488	Strain Hardening Modulus	Apr-24
2010120	ISO 18489	Crack growth - cracked round bar	Apr-24
2010529	ISO 10147	Degree of crosslinking of PE-X	Apr-24

[A] = For accredited and non-accredited status please see Online portal (ODIN)

26

For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (<u>www.DRRR.de</u>). You can also use the registration forms on page 45 of this catalogue.

## Foams (ISO / DBL / ASTM)

Art. No.	Standard	Proficiency testing type <sup>[A]</sup>	period	To view pricing information visit our online Portal:
2010848	ISO 845	Apparent density	Apr-24	Login or register
2010829	ISO 1798	Tensile test	Apr-24	
2010034	ISO 8067	Tear strength (method B)	Apr-24	
2010730	ISO 1856	Compression set	Apr-24	
2010036	ISO 3385	Fatigue constant-load pounding	Apr-24	
2010831	ISO 3386-1 DBL 5452	Compression stress value CV40	Apr-24	
2010038	ISO 2439	Hardness (indentation)	Apr-24	
2010874	DBL 5307 FMVSS 302	Burning rate	Apr-24	
2010040	ASTM D3574 Test B1	Indentation Force Deflection Test	Apr-24	
2010042	ASTM D3574 Test C	Compression Force	Apr-24	
2010044	ASTM D3574 Test D	Compression Set	Apr-24	
2010046	ASTM D3574 Test E	Tensile Test	Apr-24	
2010048	ASTM D3574 Test F	Tear Resistance	Apr-24	
2010050	ASTM D3574 Test I3	Fatigue - Constant Force Pounding	Apr-24	
2010052	ASTM D3574 Test J	Steam Autoclave Aging	Apr-24	
2010054	ASTM D3574 Test K	Dry Heat Aging	Apr-24	
2010152	ASTM D3574 Test L	Wet Heat Aging	Apr-24	
2010412	ASTM D3574 Test N	Hysteresis Loss	Apr-24	
2010687	PV 3937	Amine Emissions	Apr-24	

Art. No.	Standard	Proficiency testing type <sup>[A]</sup>	period	To view pricing information visit our online Portal:
2010058	EN 310 / DBL 5472	Board - Modulus in bending and bending strength	Apr-24	Login or register
2011024	ISO 2528	Sheet materials - Water vapour transmission rate	Oct-24	
2011025	ISO 535	Paper and board - Water absorptiveness (Cobb)	Oct-24	
2011026	ISO 5636-3	Paper and board - Air permeance (Bendtsen)	Oct-24	
2011027	ISO 5636-5	Paper and board - Air permeance (Gurley)	Oct-24	
2011028	ISO 536	Paper and board - Grammage	Oct-24	
2011029	ISO 534	Paper and board - Thickness, density, specific volume	Oct-24	
2011030	ISO 12625-3	Tissue products - Thickness	Oct-24	
2011031	ISO 12625-8	Tissue products - Water-absorption capacity	Oct-24	
2011032	ISO 12625-6	Tissue products - Grammage	Oct-24	

### Paper | Board [NEW!]

27

28

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Art. No.	Standard	Proficiency testing type <sup>[A]</sup>	period	To view pricing information visit our online Portal:
2010971	EN 59 ASTM D2583	Barcol hardness	May-24	Login or register
2010060	EN 2564	Fibre-, resin- and void contents	May-24	
2010726	ISO 14125	Flexural properties	May-24	
2010724	ISO 14126	Compressive properties	May-24	
2010725	ISO 14129	45° tension test method	May-24	
2010772	ISO 14130	Apparent interlaminar shear strength	May-24	
2010723	ISO 527-1/-4	Tensile test (isotropy, anisotropy)	May-24	
2010768	ISO 527-1/-5	Tensile test (unidirectional)	May-24	
2010522	ASTM D5379	Shear Properties (V-Notched Beam) [NEW!]	May-24	
2011048	ASTM D7078	Rail Shear Method [NEW!]	May-24	
2010524	ISO 13003	Fatigue properties under cyclic loading conditions [NEW!]	May-24	
2010062	ISO 2555	Apparent viscosity	May-24	
2010068	ISO 3219	Viscosity rotational viscometer	May-24	

### **Composites - Fibre-reinforced plastics**

## GRP pipes / cured-in-place pipes (CIPP) -Fibre-reinforced plastics

Art. No.	Standard	Proficiency testing type <sup>[A]</sup>	period	
2010533	ASTM D638	Tensile test [NEW!]	May-24	
2010535	ASTM D790	Flexural test [NEW!]	May-24	
2010537	ISO 11296-4 annex B	Short-term flexural properties <b>[NEW!]</b> (ASTM F2019 appendix X2)	May-24	

[A] = For accredited and non-accredited status please see Online portal (ODIN)

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29

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Art. No.	Standard	Proficiency testing type <sup>[A]</sup>	period	To view pricing information visit our online Portal:
2010901	ISO 527-1/-3	Tensile test geosynthetics	Mar-24	Login or register
2010902	ASTM D6693	Tensile Properties of PE/PP Geomembranes	Mar-24	
2010903	ASTM D1004	Tear Resistance (Graves Tear)	Mar-24	
2010904	ISO 12236	Static puncture Test (CBR-Test)	Mar-24	
2010912	DIN EN 14576	Stress Crack Resistance	Mar-24	
2010906	ISO 9863-1	Thickness at specified pressures (20 kPa)	Mar-24	
2010909	EN 1107-2	Dimensional stability	Mar-24	
2010759	ISO 11358	Carbon black content (TGA)	Mar-24	
2010876	ASTM D4218	Carbon black content (muffle-furnace)	Mar-24	
2010877	ASTM D5596	Dispersion of Carbon Black	Mar-24	

### **Geosynthetics (geomembrane)**

In cooperation with:

For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (<u>www.DRRR.de</u>). You can also use the registration forms on page 45 of this catalogue.



### **Textiles - Fabric properties - part I**

Art. No.	Standard	Proficiency testing type <sup>[A]</sup>	period	To view pricing information visit our online Portal:
2010733	EN 12127 ISO 3801	Mass per unit area: natural or synthetic fibre materials both climats 23/50 or 20/65 possible	May-24	Login or register
2010983	freely selectable	Construction of fabric - woven and knitted fabric: number of threads / wales / course	May-24	
2010732	ISO 9073-2	Thickness of nonwovens	May-24	
2010070	ISO 9073-4	Tear resistance nonwovens	May-24	
2010635	ISO 9073-3	Tensile properties of nonwovens	May-24	
2010734	ISO 13934-1	Tensile properties - strip method	May-24	
2010837	ISO 13934-2	Tensile properties - grab method	May-24	
2010778	ISO 13937-1	Tear properties - Elmendorf method	May-24	
2010800	ISO 13937-2	Tear properties - trouser shaped specimen	May-24	
2010801	ISO 13937-3	Tear properties - wing shaped specimen	May-24	
2010802	ISO 12947-2	Abrasion resistance - Martindale	May-24	
2010637	ISO 12947-3	Abrasion resistance Martindale (mass loss)	May-24	
2010803	ISO 12945-1	Pilling properties - Pilling box	May-24	
2010804	ISO 12945-2	Pilling properties - Martindale	May-24	
2010841	ISO 13936-1	Slippage resistance of yarns - Fixed seam opening	May-24	
2011103	ISO 13936-2	Slippage resistance of yarns - Fixed load	May-24	
2010072	ISO 13935-1	Maximum force seam (strip method)	May-24	
2011177	ISO 13935-2	Maximum force seam (grab method) [NEW!]	May-24	
2010842	ISO 13938-2	Bursting strength and bursting distension	May-24	
2010751	ISO 3071	PH value of textiles	May-24	
2010973	DIN 54278-1	Determination of materials soluble in organic solvents	May-24	

[A] = For accredited and non-accredited status please see Online portal (ODIN)

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### In cooperation with:



### **Textiles - Fabric properties - part II**

Art. No.	Standard	Proficiency testing type <sup>[A]</sup>	period	To view pricing information visit our online Portal:
2011178	ISO 16322-2	Spirality after laundering [NEW!]	May-24	Login or register
2011179	ISO 15487	Self-flatness behavior [NEW!]	May-24	

### **Textiles - Automotive testing**

Art. No.	Standard	Proficiency testing type <sup>[A]</sup>	period	To view pricing information visit our online Portal:
2010669	PV 2034	Floating Roller Peel Test	Jan-24	
2010679	PV 3906	Abrasion Behavior	May-24	
2010681	PV 3908	Wear Resistance	May-24	
2010683	PV 3909	Static and Permanent Elongation	May-24	
2010685	PV 3922	Oil- and Water-Repellent Behavior	May-24	
2010689	PV 3955	Trim Cover Material - Seam Slippage Resistance	Jan-24	
2010691	PV 3961	Trim Cover Material - Hook Fastener Test	Jan-24	

## **Textiles - Determination of fibre blends**

Art. No.	Standard	Proficiency testing type <sup>[A]</sup>	period	
2010974	not specified	Qualitative determination of a fibre blend	May-24	
2010737	ISO 1833-11	Quantitative determination of a fibre blend (PES-CO)	May-24	
2010776	ISO 1833-12	Quantitative determination of a fibre blend (Acrylic fibres)	May-24	
2010738	ISO 1833-4	Quantitative determination of a fibre blend (Protein fibres)	May-24	
2010739	ISO 1833-6	Quantitative determination of a fibre blend (Viscose fibres)	May-24	
2010740	ISO 1833-7	Quantitative determination of a fibre blend (Polyamide fibres)	May-24	

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32

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### In cooperation with:



## Textiles - Functional properties b. Standard Proficiency testing type <sup>[A]</sup> period

Art. No.	Standard	Proficiency testing type <sup>[A]</sup>	period	To view pricing information visit our online Portal:
2010805	Diffuse / 8°- geometry	Colour measurement - $\Delta E$ , $\Delta L$ , $\Delta a$ , $\Delta b$	May-24	Login or register
2010806	acc. to Ganz	Whiteness measurement	May-24	
2010839	ISO 811	Hydrostatic pressure test	May-24	
2010840	ISO 5077   ISO 6330	Dimensional change in washing (drying method F)	May-24	
2010807	ISO 15797	Industrial washing and colour change (method 2 peracetic acid bleach)	May-24	
2010832	ISO 9237	Permeability of fabrics to air	May-24	
2010995	ISO 11092	Thermal and water vapour resistance	May-24	
2010237	ASTM E96 (BW)	Water Vapor Transmission (WVT)	May-24	
2010074	ISO 4920 / AATCC 22	Spray test - surface wetting	May-24	
2010319	EN 29865	Bundesmann Rain-shower test	May-24	
2010092	ISO 14419	Oil repellency	May-24	
2010514	EN 13758-1	Solar UV protective properties	May-24	

### **Textiles - burning behaviour**

Art. No.	Standard	Proficiency testing type <sup>[A]</sup>	period	
2010808	DIN 75200/ FMVSS 302	Burning rate of textiles	May-24	
2011175	UN/ECE R118 appendix 8	Vertical burning rate [NEW!]	May-24	
2011176	ISO 6941	Burning behaviour vertically oriented specimens [NEW!]	May-24	

### Individual fibres

Art. No.	Standard	Proficiency testing type <sup>[A]</sup>	period	
2010975	ISO 1973	Linear density (4,4dtex to 15dtex)	May-24	
2010976	ISO 5079	Breaking force and elongation at break (4,4dtex to 15dtex)	May-24	

For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (<u>www.DRRR.de</u>). You can also use the registration forms on page 45 of this catalogue.

### **Textiles - Colour fastness**

Art. No.	Standard	Proficiency testing type <sup>[A]</sup>	period	To view pricing information visit our online Portal:	
2010809	ISO 105-B02	Colour fastness to light - Xenon arc	Oct-24	Login or register	
2010810	ISO 105-B04	Colour fastness to light - Xenon arc	Oct-24		
2010510	ISO 105-B07	Colour fastness to light - artificial perspiration	Oct-24		
2010833	ISO 105-C06/C2S	Colour fastness to washing 60°	Oct-24		
2010735	ISO 105-X12	Colour fastness to rubbing - Crockmeter	Oct-24		
2010834	ISO 105-C08	Colour Fastness to washing	Oct-24		
2010629	ISO 105-C10	Colour fastness to washing with soap or soap and soda	Oct-24		
2010835	ISO 105-D01	Colour Fastness to dry cleaning	Oct-24		
2010512	ISO 105-D02	Colour fastness to rubbing - organic solvents	Oct-24		
2010752	ISO 105-E01	Colour Fastness to water	Oct-24		
2010223	ISO 105-E02	Colour Fastness to sea water	Oct-24		
2010229	ISO 105-E03	Colour Fastness to chlorinated water	Oct-24		
2010736	ISO 105-E04	Colour Fastness to perspiration	Oct-24		
2010992	ISO 105-E06	Colour fastness to spotting: Alkali	Oct-24		
2010633	ISO 105-N01	Colour fastness to bleaching; hypochlorite	Oct-24		
2010917	ISO 105-N02	Colour fastness to bleaching; peroxide	Oct-24		
2010993	ISO 105-P01	Colour fastness by dry heat	Oct-24		
2010231	ISO 105-X05	Colour fastness to organic solvents	Oct-24	Oct-24	
2010235	ISO 105-X11	Colour fastness to hot pressing	Oct-24		

[A] = For accredited and non-accredited status please see Online portal (ODIN)





## 34 Proficiency tests - Leather

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Art. No.	rt. No. Standard Proficiency testing type <sup>[A]</sup>		period	To view pricing information visit our online Portal:	
2010770	DBL 5307 FMVSS 302	Leather - burning rate	Apr-24	Login or register	
2011038	ISO 105-B02	Colour fastness to light - Xenon arc [NEW!]	Apr-24		
2010028	ISO 3376	Tensile test (strenght, extension)	Apr-24		
2010030	ISO 3377-1	Tear load - single edge tear	Apr-24		
2010032	ISO 3377-2	Tear load - double edge tear	Apr-24		
2010066	ISO 2589	Thickness	Apr-24	24	
2010713	ISO 11640	Colour fastness to cycles of rubbing	Apr-24	24	
2010709	ISO 17186	Surface coating thickness	Apr-24		
2010516	VDA 270	Odour test (variant D4 and D5)	Apr-24		
2010645	ISO 4045	pH value and difference figure	Apr-24		
2010643	ISO 11641	Colour fastness to perspiration	Apr-24		
2010647	ISO 11642	Colour fastness to water	Apr-24		
2011173	ISO 14268	Water vapour permeability [NEW!]	/ater vapour permeability [NEW!] Apr-24		
2010695	PV 3968	Soiling Behavior	Apr-24		

Leather

Proficiency Tests for chemical leather testing can be found in the catalogue "consumer goods" or the online catalogue: e.g. metal content, preservatives, formaldehyde, chlorophenols, volatile substances, organotin compounds

For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (<u>www.DRRR.de</u>). You can also use the registration forms on page 45 of this catalogue.

## Application Lab

In cooperation with:

Art. No.	Standard	Proficiency testing type <sup>[A]</sup>	period	To view pricing information visit our online Portal:
2010990	ISO 32100	Flex resistance (flexometer method)	May-24	Login or register
2010991	ISO 1421	Tensile strength and elongation at break	May-24	
2011050	ISO 2411	Coating adhesion	May-24	
2010631	ISO 4674-1	Tear resistance (method B)	May-24	
2010150	ISO 2286-3	Thickness	May-24	
2010086	ISO 7854-A	Resistance to damage by flexing (De Mattia)	May-24	
2010088	ISO 7854-C	Resistance to damage by flexing (crumple/flex)	May-24	
2010090	ISO 5470-2	Abrasion resistance (Martindale)	May-24	

### **Coated fabrics**

35

### **Chemical textile testing:**

Further Proficiency Tests for chemical textile testing can be found in the catalogue "consumer goods" or the online catalogue: e.g. heavy metals, formaldehyde, flame retardants, azo dyes, pesticides, chlorophenols, phthalates, PAH, organotin compounds

### **Microbiology textile**

Art. No.	Standard	Proficiency testing type <sup>[A]</sup>	period	
2010076	AATCC 100	Antimicrobial Fabric Test	May-24	
2010078	AATCC 147	Antibacterial Parallel Streak		
2010080	ISO 20743 / AATCC 90	Antibacterial Activity	May-24	
2010082	EN 16615	4-field test / microbial reduction textile	May-24	

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## Proficiency tests - Personal protective equipment (PPE)

36

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### In cooperation with:



## **Protective clothing (general)**

Art. No.	Standard	Proficiency testing type <sup>[A]</sup>		To view pricing information visit our online Portal:
2010094	EN 863	Puncture resistance	May-24	Login or register
2010096	EN 1149-1	Surface resistivity	Surface resistivity May-24	
2010098	EN 1149-2	Vertical resistance	Vertical resistance May-24	
2010100	EN 1149-3	Charge decay	May-24	
2010102	ISO 15025	Limited flame spread	May-24	
2010104	ISO 9185	Resistance to molten metal splash	May-24	
2011182	ISO 6530	Resistance of materials to penetration by liquids [NEW!]	May-24	
2011183	ISO 17493	Convective heat resistance (hot air circulating oven) [NEW!]	May-24	

### **Protective and medical gloves**

2010639	EN 388	Mechanical risks	May-24
2011036	ISO 13997	Resistance to cutting	May-24
2011180	ISO 21420	Length and finger dexterity [NEW!]	May-24
2011037	EN 455-2	Medical gloves - Dimensions [NEW!]	May-24

### **Filtering half masks**

Art. No.	Standard	Proficiency testing type <sup>[A]</sup>	period	
2010551	EN 149+A1	Particle filter penetration (EN 13274-7) May-2		
2010321	EN 14683	Face masks - bacterial filter efficiency / pressure difference	May-24	
2010621	EN 14683	Face masks - Splash Resistance (ISO 22609)	May-24	

[A] = For accredited and non-accredited status please see Online portal (ODIN)

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# Proficiency tests - Personal protective equipment (PPE)

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In cooperation with:



## High visibility clothing (ISO 20471)

Art. No.	Standard	Proficiency testing type <sup>[A]</sup>	period	To view pricing information visit our online Portal:
2010106	ISO 20471 / 5.1	Color measurement (background material) [NEW!]	May-24	Login or register
2010108	ISO 20471 / 6.1	Retroreflection of (retroreflective material) [NEW!]	May-24	

### **Microplastics from textile sources**

Art. No.	t. No. Standard Proficiency testing type <sup>[A]</sup>		period	
2010625	ISO 4484-1 AATCC TM212	Material loss from fabrics during washing [NEW!]	May-24	
2011174	ISO 4484-2	Qual. and quant. evaluation of microplastics [NEW!]	May-24	

### **Earplugs**

37

Art. No.	Standard	Proficiency testing type <sup>[A]</sup>	period	
2011181	EN 352-2	Sound attenuation [NEW!]	May-24	

# Proficiency tests - Environmental testing / EMC

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### **Environmental testing**

38

Art. No.	Standard	Standard Proficiency testing type <sup>[A]</sup>		To view pricing information visit our online Portal:
2011035	IEC 60068-2-6 IEC 60068-2-64	Vibration - sinusoidal / broadband random Feb-24		Login or register
2011107	IEC 60068-2-6 IEC 60068-2-64	Vibration - sinusoidal / broadband random (round 2)	May-24	
2011034	IEC 60068-2-27	Shock	May-24	
2011194	IEC 60068-2-14	Change of temperature (temperature range 25°C – 55°C) <b>[NEW!]</b>	Mar-24	
2011195	IEC 60068-2-30 IEC 600068-2-38	Damp heat and temperature/humidity cyclic [NEW!]	Apr-24	

## **Electromagnetic compatibility (EMC)**

Art. No.	Standard	Proficiency testing	type <sup>[A]</sup>	period	
	Radiated Emission	on:			
2011065	RTCA DO-160 (section 21) ABD0100.1.2 (section 3.4.5) BOEING D6-36440		Emission of Radio Frequency Energy	May-24	2 MHz - 6 GHz
2011066	MIL-STD461 (RE102) AECTP 500 (NRE02) VG95373-12 (SA04G)		Radiated Emissions - Electric Field	Jul-24	10 kHz - 18 GHz
2011070	IACS E10 (No. 19) DNV-CG-0339 (section 14.11) Lloyd's Register No. 1 (section 29)		Radiated emission (E-Field)	May-24	30 MHz - 6 GHz
2011072	CISPR 25		Radiated emissions assemblies - Anechoic chamber	Jul-24	150 kHz - 2.5 GHz
2011074	UN ECE R10 (6.5) / (6.6)		Broadband and Narrowband electromagnetic interference (ESA)	Jul-24	30 MHz - 1 GHz (BB and NB)
2011075	EMV06 (Annex E)		Radio compatibility - Measurement on devices	May-24	0,3 m and 0,7 m band Antenna distance 3 m
2010931	CISPR 16-2-3 EN 55016-2-3 EN 55011		Radiated disturbance	May-24	30 MHz - 6 GHz Antenna distance 3 m (EN 55011 up to 1 GHz)

[A] = For accredited and non-accredited status please see Online portal (ODIN)

In cooperation with:

LTIERS

# Proficiency tests - Environmental testing / EMC

For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (<u>www.DRRR.de</u>). You can also use the registration forms on page 45 of this catalogue.

39

### In cooperation with:

*LTIERS* 

## Electromagnetic compatibility (EMC)

Art. No.	Standard	Proficiency testing	g type <sup>[A]</sup>	period	To view pricing information visit our online Portal:
	Radiated Suscep	tibility:			Login or register
2011077	RTCA DO-160 (section ABD0100.1.2 (section BOEING D6-36440	•	Radio Frequency Susceptibility (Radiated)	May-24	100 MHz - 8 GHz Test level: Cat R
2011078	MIL-STD461 (RS103) AECTP 500 (NRS02)		Radiated susceptibility - electric field	Jul-24	2 MHz - 40 GHz   Test level: 50 V/m
2011080	VG95373-13 (SF03G)		Immunity to radiated disturbances	Jul-24	30 MHz - 1 GHz Test level: 20 V/m (GK 3) 1 GHz - 40 GHz Test level: 63 V/m (GK 3)
2011082	IACS E10 (No. 14) DNV-CG-0339 (sectior Lloyd's Register No. 1		Immunity to Radiated Radio Frequency Fields	May-24	80 MHz - 6 GHz   Limit value / test level: 10 V/m
2011084	ISO 11452-2		Electrical disturbances - Absorber-lined shielded enclosure	Jul-24	200 MHz - 18 GHz   Limit value / test level: up to 100 V/m
2011085	UN ECE R10 (6.8)		Immunity (ESA) - electromagnetic radiation - free field	Jul-24	20 MHz - 2000 MHz   Limit value / test level: 30 V/m

# 40 Proficiency tests - Environmental testing / EMC

For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (<u>www.DRRR.de</u>). You can also use the registration forms on page 45 of this catalogue.

### In cooperation with:

**LTIERS** 

## Electromagnetic compatibility (EMC)

Art. No.	Standard	Proficiency testing type <sup>[A]</sup>	period	To view pricing information visit our online Portal:
	Conducted Em	Conducted Emission / disturbance:		Login or register
2011054	CISPR 16-2-1 EN 55016-2-1 EN 55011	Conducted disturbance	Sep-24	
2011055	IEC 61000-4-2	Electrostatic discharge immunity	Sep-24	
2010933	IEC 61000-4-3	Radiated, radio-frequency, electromagnetic field immunity	Sep-24	
2011057	IEC 61000-4-4	Electrical fast transient immunity	Sep-24	
2011058	IEC 61000-4-5	Surge immunity	Sep-24	
2011059	IEC 61000-4-6	Immunity to conducted disturbances (radio- frequency fields)	Sep-24	
2011060	IEC 61000-4-8	Power frequency magnetic field immunity	Sep-24	
2011061	IEC 61000-4-9	Impulse magnetic field immunity	Sep-24	
2011062	IEC 61000-4-10	Damped oscillatory magnetic field immunity	Sep-24	
2011063	IEC 61000-4-11	Voltage dips, short interruptions, voltage variations immunity	Sep-24	

Art. No.	Standard	Proficiency testing type <sup>[A]</sup>	period	To view pricing information visit our online Portal:
2010288	EN 12390-3 EN 12390-7	Density / Compressive strength	Dec-24	Login or register
2010290	EN 12390-5	Flexural strength (2-point load application)	Dec-24	
2010589	EN 12390-6	Tensile splitting strength	Dec-24	
2010591	EN 12390-8	Depth of penetration of water under pressure	Dec-24	
2010274	EN 12390-9	Freeze thaw resistance-scaling (plate method)	Dec-24	
2010205	EN 14629	Chloride content	Dec-24	
2010270	EN 450-1	Fly ash - Mass percentage of reactive CaO	Dec-24	

### Hardened concrete

### Fresh concrete

[sample preparation by the participant]

Art. No.	Standard	Proficiency testing type <sup>[A]</sup>	period	
2010593	EN 12350-4,-5,-6,-7	Degree of compactability, flow table test, density and air content - pressure methods <b>[NEW!]</b>	Dec-24	

### Cement

Art. No.	Standard	Proficiency testing type <sup>[A]</sup>	period
2010284	EN 196-1	Determination of strength	Nov-24
2010266	EN 196-2	Chloride content	Nov-24
2010268	EN 196-2	Loss of ignition	Nov-24
2010569	EN 196-2	Total sulphate content	Nov-24
2010595	EN 196-3	Setting times / soundness	Nov-24
2010597	EN 196-6	Fineness	Nov-24
2011184	EN 196-10	Water-soluble chromium (VI)	Nov-24
2011039	EN 12467	Fibre-cement flat sheets - density and bending [NEW!]	Nov-24

## Mortar for masonry

[sample preparation by the participant]

Art. No.	Standard	Proficiency testing type <sup>[A]</sup>	period	To view pricing information visit our online Portal:
2010599	EN 1015-1	Particle size distribution (by sieve analysis)	Dec-24	Login or register
2010601	EN 1015-3, -6, -7	Consistence, bulk density and air content of fresh mortar	Dec-24	
2010276	EN 1015-10	Dry bulk density	Dec-24	
2010298	EN 1015-11	Flexural and compressive strength	Dec-24	
2010300	EN 1015-12	Adhesive strength of hardened mortars	Dec-24	

### **Screed mortar**

[sample preparation by the participant]

Art. No.	Standard	Proficiency testing type <sup>[A]</sup>	period	
2010302	EN 13892-2	Flexural and compressive strength	Dec-24	

### Masonry units [NEW!]

Art. No.	Standard	Proficiency testing type <sup>[A]</sup>	period	
2010603	EN 772-1	Compressive strength	Nov-24	
2010605	EN 772-21	Water absorption by cold water absorption	Nov-24	

### **Mineral building materials**

Art. No.	Standard	Proficiency testing type	period	
2010571	ISO 12570	Moisture content - drying at elevated temperature	Dec-24	
2010573	ISO 12571	Hygroscopic sorption properties	Dec-24	

[A] = For accredited and non-accredited status please see Online portal (ODIN)

Art. No.	Standard	Proficiency testing type <sup>[A]</sup>	period	To view pricing information visit our online Portal:
2010611	EN 933-1	Particle size distribution - Sieving method	Nov-24	Login or register
2010613	EN 933-4	Particle shape - Shape index	Nov-24	
2011185	EN 933-9	Fines - Methylene blue test [NEW!]	Nov-24	
2011186	EN 933-10	Fines - Grading of filler aggregates [NEW!]	Nov-24	
2010575	EN 1097-3	Loose bulk density and voids	Nov-24	
2010579	EN 1097-6	Particle density and water absorption	Nov-24	
2010581	EN 1744-1 (cl. 7)	Water-soluble chloride salts - Volhard method	Nov-24	
2011187	EN 1744-1 (cl. 8)	Water-soluble chloride salts - potentiometrie [NEW!]	Nov-24	
2010583	EN 1744-1 (cl. 11+12)	Total sulfur content, Acid soluble sulfates	Nov-24	

### Aggregates

### **Bituminous mixtures & Bitumen**

Art. No.	Standard	Proficiency testing type <sup>[A]</sup>	period
2011191	EN 12697-1	Bituminous mixtures - Soluble binder content [NEW!]	Dec-24
2011192	EN 1426	Bitumen - needle penetration [NEW!]	Dec-24
2011193	EN 1427	Bitumen - softening point [NEW!]	Dec-24
2011197	EN 12697-6	Bulk density of bituminous specimens (Procedure B) [NEW!]	Dec-24

[A] = For accredited and non-accredited status please see Online portal (ODIN)

Art. No.	Standard	Proficiency testing type <sup>[A]</sup>	period	To view pricing information visit our online Portal:
2010587	ISO 29470	Thermal insulating products - Apparent density	Dec-24	Login or register
2010607	EN 1607	Tensile strength perpendicular to faces	Dec-24	
2011040	EN 12089	Bending behaviour [NEW!]	Dec-24	
2011041	ISO 29466	Thermal insulating products - Thickness <b>[NEW!]</b>	Dec-24	
2010609	ISO 29469	Compression behaviour	Dec-24	
2010286	EN 29052-1	Acoustics determination of dynamic stiffness	Dec-24	
2010280	EN 12667	Heat transfer	Dec-24	
2011188	ISO 16535	Long term water absorption by immersion (2A) [NEW!]	Dec-24	
2011189	EN 1604	Dimensional stability [NEW!]	Dec-24	
2011190	EN 12086	Water vapour transmission [NEW!]	Dec-24	

### **Thermal insulating material**

## Other building material

Art. No.	Standard	Proficiency testing type <sup>[A]</sup>	period	
2010282	EN ISO 15148	Water absorption coefficient by partial immersion	Nov-24	

[A] = For accredited and non-accredited status please see Online portal (ODIN)

## **Registration form - Proficiency test**

Article No. / proficiency testing type	period	result release and report online (ODIN)	result release by e- mail / fax; report by e- mail	additional sample sets

Up to nine additional result sheets can be returned for chemical-physical, microbiological and physical-mechanical proficiency testing rounds are free of charge. As a participant, you benefit from our international recognized proficiency testing schemes. By submitting up to ten result sheets you are now enabled to run international comparisions to check different methods and different lab technicians with one proficiency testing round. Your benefit: Participating in DRRRproficiency testing services save costs for your quality assurance! If you need additional sample sets, you have the opportunity to order it according to our latest product catalogue.

Please note, that the free of charge service is only valid for returning result sheets by ODIN. If you send us your results by mail, fax or postal delivery, the additional result sheet will be charged according the latest product catalogue as a sample set equivalent.

In very rare individual cases an accredited proficiency testing round will not be carried out within the scope of accreditation due to technical or organizational reasons. In these rare cases the DRRR will inform the participants before the start of the proficiency testing round, thus before the sample shipment. An immediately free cancellation for the participants is possible until the date of the sample shipment.

Your registration is an one-time order. It is only valid for one year. Cancelation fees apply when cancelling a registration. If you want to have a permanent-registration please tick the box on the right side.

Please send registration to: fax-no. +49 (0)8 31/960 878-99 e-mail: info@DRRR.de online via www.odin.drrr.de

- this registration is permanent-registration and 0 valid until my cancelation
- An offer with the total costs is needed 0
- A Purchase order from the purchasing department will follow 0

DRRR-customer number	
company	
street	
post-code /city	
country (if not Germany)	
fon	
fax	
e-mail	
VAT-ID-No. (if available)	
Vith your signature you agree /ith our general terms and	

٧ w conditions.

date

signature

### Importance

Reference material is a substance or item with one or more defined (known) characteristics and sufficient homogeneity.

### Benefit certified reference material

These materials are suitable for the calibration of equipment, for the quality assurance of testing methods or to analyse derivate reference materials. DRRR-Reference materials are essential for the chemical, physical and mechanical testing as well as for the quality assurance. Standards for the accreditation of testing and calibration laboratories demand the using of reference materials.

The use of reference materials (RM) and certified reference materials (CRM) is an important procedure to avoid mistakes in the lab routine.

### **Characteristics**

- the reference value is developed by the total number of results of the participants of proficiency testing (consensus value)
  DRRR-Reference materials do always refer to a DRRR-Proficiency testing
- · reliable reference values according to
- advanced statistical evaluation
- independent service without influence of societies organisations and federations

The opportunity to collaborate with the best laboratories for the different requirements assures the high quality of our materials.

### Availability

For all Proficiency testing schemes in this catalogue reference material is available. You can contact us for price information or for currently available reference materials.

### Description

Profit with our high quality standards for your lab work

Reference materials meet all requirements of the ISO Guides 31 and 35, but it does not exist any accreditation for reference material

Availability and order request

quality management / assurance

We have collected wide experience in building up and operating process orientated quality management systems. Our experience is based on an intensive quality management qualification (DQG –EOQ quality manager). Feedback of our costumers gives us a wide overview about the various requirements that companies have to pass at audit situations.

As a qualified and examined auditor (DGQ-EOQ auditor quality, TGA) we are capable to estimate a company from different perspectives if quality management system is fit for audit and following we can show potentials for improvement.

We offer assistance for the following questions:

- building up process orientated quality management
- building up of a secure testing agent system
- assessment of quality systems in preparation for audits
- advice in operating effective quality management systems

With our expertise in interpreting ISO 9001 over IFS to DIN 17025 we serve companies of food economy and laboratories.

On the basis of our international activities we also have experience in building up and implementation of quality management systems in developing countries. We place our services at your disposal for international questions.

Please do not hesitate to contact us.

### **IR-Seminar**

The IR-seminar explains how to analyze different kind of food by IR spectroscopy. Furthermore specific peculiarties for the IR calibartion of selected food will be discussed. The specific peculiarties of the calibration will be explained intensify. How to calibrate? When you have to update the calibration? What is the cause of measurement problems?

### Sensory seminar

The importance of the sensory in the food stuff industry will be explained and clarified in practice. The current state of new tastes is presented. Furthermore the participant will be enabling to apply the sensory testing methods. The use of sensory methods will be explained and on the basis of various sensory materials implemented.

### **User-Workshop**

Typical questions in the chemical and microbiological analysis of food, especially dairy products are presented and possible solutions will be demonstrated.

Furthermore efficient ways to increase the laboratory quality will be presented. The seminar is accompanied by the practical experience of users.

#### Statistics seminar for beginners

This seminar presents the Binomial-, Poissonand Normal distribution and the application of them. Problem cases and the classis misinterpretation due to a false outlier treatment by the application of the Normal distribution are shown.

#### Statistics seminar for advanced learners

This seminar presents the Shapiro-Wilk-Test, qui<sup>2</sup>-adaptation test, Median and MAD (Median absolute deviation) and their application. Furthermore the participants will be informed about the robust standard deviation after Qmethod and the robust average after Hampel. The seminar will be complemented by theoretical exercises on IR spectroscopy. In the practical excericise calibration data sets will be testes for suitability and critical data sets will be identifed.

The sensory measurement uncertainty of each participant will be determined at a practical example.

A lot of space for the exchanging of knowledge and experience is provided at the User-Workshop. Therefore some experts are available as contact persons.

The seminar is complemented by practical exercises with the notebook.

The seminar is complemented by practical exercises with the notebook.

Implementation of DIN EN ISO/IEC 17025 in food laboratories

The participants will learn all items to implement a successful internal audit. Furthermore typical errors of the implementation of the audit will be targeted and avoidance strategies are communicated. The reliable identification of the deviation in audits and their successful processing in the form of measures will be trained.

### Inhouse-Training

We consider lectures, training and seminars as in important duty. Not primary concerning commercial possibilities but by reason that the knowledge transfer is the most important item in every department of our society.

- Seminar and training (one-day) of handling and implementation of proficiency testing
- Seminar and training (one-day) of operating control charts
- Seminar and training of sensory (customised product sensory)

You will benefit of the extensive experience of the DRRR, because the DRRR go through the audit situation in a perspective of 360 ° as an auditor, as an audited person and as a neutral expert.

For special requirements we also offer customised training programmes.

For questions about contents and conditions do no hesitate to contact us.

### Terms of payment

Our prices are net prices (plus 19% value added tax). Customers from European countries can provide us with their EU-VAT-Identification number, then they will be exempt from German value added tax. Terms of payment: 8 days net, without deduction Fees for specially required customs documents such as import permits or similar will be invoiced according to time and effort.

Our bank details: Raiffeisenbank in Allgäuer Land / bank code 733 692 64 Account 102350 / IBAN DE 94733692640000102350 BIC code: GENO DEF1DTA Sales tax ID no. DE254613132 tax number 127/124/32207

Terms of delivery

Shipping costs for reference materials and proficiency tests will be invoiced according to time and effort. All samples and packaging materials are the property of the DRRR. Samples that are used for nondestructive testing and are therefore not subject to destruction in the course of the proficiency test can be reclaimed by the DRRR upon request. The DRRR shall bear the shipping costs for the return transport if the materials are reclaimed.

Proficiency tests or reference materials marked "frozen" are shipped with our ADR safety tested frozen packaging system. A packaging fee is charged for the polystyrene box including cooling accumulators and air bubble film as well as the protective outer packaging. Frozen materials are shipped by express service. With the delivery of reference materials, you will receive a quality certificate with the details of the respective reference values as well as associated uncertainties.

Terms of delivery (risk group 1, 2 and 3)

Proficiency tests or reference materials marked with "Risk Group 1" are not subject to any participation restrictions according to § 44 IfSG (Infektionsschutzgesetz).

For proficiency tests or reference materials marked with "risk group 2, or risk group 3<sup>\*\*</sup>", we need a permission from your laboratory according to § 44 IfSG (Infektionsschutzgesetz) or similar. Please enclose a copy of the permission with your registration or order.

Our general terms and conditions (Allgemeine Geschäftsbedingungen) are valid!

## The German reference office for proficiency testing and reference materials GmbH (hereinafter referred to as DRRR) for freely agreed services, in particular testing, training and expert activities as well as reference materials.

### § 1 General terms and conditions

The client acknowledges the General Terms and Conditions and price lists valid at the time of placing the order. Deviating terms and conditions of individual clients cannot be accepted.

Collateral agreements, promises and other declarations by the employees of the DRRR are only binding if they are expressly confirmed in writing by the DRRR. This shall also apply to amendments to this clause. If individual regulations within this contract or its components are ineffective, this does not affect the validity of the remaining regulations. The contracting parties shall have a duty, acting in accordance with the principles of good faith, to replace any invalid provision by one which is valid and which produces the same economic outcome as that intended by the invalid provision and providing that such replacement does not result in any change to the content of the contract; the same shall also apply analogously to any matter which requires regulation but for which no provision is made in these Terms and Conditions.

### § 2 Execution of the order

The orders accepted by the DRRR shall be carried out or expert opinions shall be prepared in accordance with the recognized rules of technology and – unless otherwise agreed in writing – in the manner customary at the DRRR. No responsibility shall be assumed for the correctness of the safety programs or safety regulations on which the tests are based, unless expressly agreed otherwise in writing.

The scope of the DRRR's work shall be specified in writing when the order is placed. If the proper execution of the order results in changes or extensions to the specified scope of the order, such changes or extensions shall be agreed in writing prior to execution. If the Customer can no longer be reasonably expected to adhere to the contract with regard to the changes or extensions, the Customer shall in this case be entitled to withdraw from the contract. However, according to § 649 BGB, the client must pay the agreed remuneration or, in the absence of an agreement, an appropriate remuneration.

The contractual services of the DRRR are deemed to have been rendered upon preparation of the respective final reports or expert reports.

A seminar registration can be cancelled free of charge for up to 6 weeks, after which the customer will be invoiced for the costs of the participants depending on the time and effort involved.

The following cancellation conditions apply to the cancellation of a proficiency testing:

Consolution notification pariod	Permanent registration (D)			
Cancelation notification period:	single (one-time) registration (E)			
up to 2 months before the preficiency testing	no costs (D)			
up to 3 months before the proficiency testing	50,00 € (E)			
2 months before the preficiency testing start	50,00 € (D)			
3 months before the proficiency testing start	half proficiency testing price (E)			
sample shipment – deadline of the results	complete price of the proficiency testing and any further incurred costs (D & E)			

§ 3 Deadlines

The order deadlines specified by the DRRR shall not be binding unless their binding nature has been expressly agreed in written form.

52

### § 4 Warranty and liability

The integrity of the sample material to a defined condition is only guaranteed until the first border crossing in the case of foreign shipments.

Safety note: When sending materials of risk group 2, the DRRR must receive a letter from the recipient stating that the recipient is authorized to handle hazardous materials (e.g. pathogenic germs).

The DRRR's warranty only covers the services expressly commissioned to it pursuant to Section 2. No warranty is thereby assumed for the correctness and functioning of the relevant overall system, measuring instruments or materials to which the examined or tested samples belong; in particular, the DRRR bears no responsibility for packaging, material selection and construction of the examined systems, measuring instruments or assemblies, unless these issues are expressly the subject of the order.

Even in the latter case, the warranty obligation and legal responsibility of the manufacturer are neither limited nor assumed.

The warranty obligation of the DRRR is limited to the rectification of an error or defect or, in the absence of a warranted characteristic, to the achievement of this characteristic within a reasonable period of time. If the rectification or creation of the characteristic fails, i.e. if it becomes impossible or unreasonable for the Customer or is refused or unduly delayed by the DRRR, the Customer shall be entitled to demand a reduction in the remuneration or rescission of the contract, at its discretion.

The DRRR shall not be liable for any work performed by the Customer in the event of incorrect proficiency tests or reference materials.

The DRRR only assumes liability for certain properties, in particular for the fact that the service is suitable for the purposes of the Customer, if a corresponding assurance of the properties in question has been given. Any liability for consequential damages from positive breach of contract due to warranted characteristics is excluded, unless the warranty was intended to protect against such consequential damages. Claims for damages of the client from §§ 463, 635 BGB due to the lack of assured characteristics remain unaffected.

If an error or defect that does not represent the absence of a warranted characteristic is due to a circumstance for which the DRRR is responsible, the DRRR shall only be liable for any damage incurred by the Customer as a result thereof per order up to a maximum amount that corresponds to the value of the order agreed in accordance with Section 2.

The materials may only be used for the corresponding scientific purpose by trained qualified personnel. The DRRR is in no case responsible and liable for used, unused or unusable samples.

The samples are intended for analytical purposes only. The DRRR assumes no liability if the samples are not used for the intended analytical purposes.

All materials are definitely not suitable for human consumption unless they are sensory materials. Oral ingestion of materials not intended for sensory purposes can be harmful to health.

In the case of sensory materials, it is the responsibility of the test persons themselves to check whether they can test the materials with regard to allergies. The ingredients of the sensory materials are declared.

All samples and packaging materials are the property of the DRRR. Samples that are used for non-destructive testing and are therefore not subject to destruction in the course of the interlaboratory comparison can be reclaimed by the DRRR upon request. The DRRR will bear the shipping costs for the return transport, if the materials are reclaimed.

The analytical properties of the material can only be guaranteed if the transport, storage and use conditions specified by the DRRR are observed.

For frozen samples, the DRRR only guarantees that the samples will be treated in accordance with the material properties stated in the data sheet. For frozen samples delivered to countries outside the EU, we can only guarantee the sample properties up to the first customs clearance point at the respective EU border.

#### § 5 Exclusion of further liability and claims

The risk (transport and remuneration risk) shall pass to the Customer as soon as the goods have left the DRRR, regardless of whether the goods are transported by the Customer's own or third-party means of transport. Claims for damages by the client are excluded. This does not apply to intent, gross negligence, breach of essential contractual obligations of the DRRR or the lack of properties guaranteed in writing.

All further claims of the client for direct and indirect damage – for whatever legal reason – in particular claims for damages due to positive breach of contract or from tort and for compensation for damage that did not occur on the object of the order itself are excluded. Irrespective of this, the client is obliged to take out the usual insurance against direct and indirect damage.

General terms and conditions

#### § 6 Remuneration and payment terms

Unless otherwise stated, the prices are in euros and do not include value added tax. This will be invoiced separately at the currently applicable rate in accordance with the applicable tax regulations. The goods remain the property of DRRR until they have been paid for in full by the customer.

The fees according to the DRRR's currently valid List of Services shall apply to the calculation of the services unless a fixed price or another basis of assessment has been expressly agreed in writing. In the absence of a valid specification of services, individual contractual arrangements shall be made in each case. Advances on costs can be requested. Partial invoices can also be issued in accordance with the services

rendered. Partial invoices need not be marked as such. The receipt of an invoice does not mean that the DRRR has fully invoiced the order.

The fees are due for payment immediately after invoicing, at the latest by the date printed on the invoice (8 days net, without deduction). Unless another arrangement has been made. If payment is made at a later date, default interest of 2% above EURIBOR will be charged on the outstanding invoice amount for the period between the due date and receipt of payment.

Objections to the invoices of the DRRR must be notified in writing within a preclusive period of 14 days after receipt of the invoice, stating reasons.

### § 7 Confidentiality and copyright

The DRRR reserves the copyrights to the expert opinions, test results, calculations, etc. prepared by it. The DRRR and its employees may not unauthorizedly disclose or exploit business and operating relationships that come to their knowledge in the course of their work.

The DRRR may take copies for its files of written documents that have been made available to the DRRR for inspection and that are of importance for the performance of the assignment.

If the proficiency test report and the laboratory code are sent by e-mail, no guarantee can be given that confidentiality will be ensured.

### § 8 Place of jurisdiction, place of performance, applicable law

The place of jurisdiction for the assertion of claims for both parties to the contract is Kempten, provided that the conditions according to § 38 of the German Code of Civil Procedure are met. This applies in particular to dunning proceedings.

The place of performance for all obligations arising from the contract is Kempten, the contractor's registered office.

The contractual relationship and all legal relationships are subject exclusively to the law of the Federal Republic of Germany applicable between domestic contracting parties, excluding the Uniform Law on the Sale of Goods and the United Nations Convention on Contracts for the International Sale of Goods.

### § 9 Guarantee of services and goods from cooperation partners

For reference materials sold on behalf of our cooperation partners, the following conditions apply with regard to liability and warranty:

The liability of our cooperation partners, their legal representatives and vicarious agents is limited to cases of intent, gross negligence, absence of a warranted characteristic and breach of an obligation, the non-compliance of which would endanger the purpose of the contract. The liability for proven damages due to grossly negligent conduct is limited to the amount of the contractual remuneration; no liability is assumed for consequential damages. Liability is limited to the use of the reference materials for the purposes described in the respective certificate.

Our cooperation partners guarantee the application of scientific diligence as well as compliance with the recognized rules of technology.

Our cooperation partners are entitled to rectify any defects that occur. If the rectification of defects fails, the client is entitled to demand a reduction of the remuneration or cancellation of the contract at his discretion. Further warranty claims are excluded.

The warranty is limited to the stated expiration date of the reference materials.

This applies to: ieLab, TGZ AQS Baden-Württemberg



Deutsches Referenzbüro für Ringversuche und Referenzmaterialien

## **Medical devices**

## product catalogue 2024 / 2025



### chemical-physical

microbiological

### In the fields:

- Sterilization residuals
- Protein residues
- Chemical
- characterization
- Extractables &
- Leachables
- Extraction of elements
- Sterilization of medical devices
- Identification of
- microorganisms
- Bacterial filter efficiency of medical face masks

# Index

general information	1
The DRRR	3
News	4
ODIN - proficiency testing online	5
Proficiency testing organsation	6
Benefits of proficiency testing	7
Statistical methods	8
z'-score > 2: What to do?	9
proficiency testing	10

# **PROFICIENCY TESTING**

chemical-physical 11

# **PROFICIENCY TESTING**

microbiological 13

15

# Registration form 14

# additional information

- Sales terms and delivery conditions 15
  - General terms and conditions 16

Deutsches Referenzbüro für Ringversuche und Referenzmaterialien GmbH (DRRR GmbH)

# **Proficiency testing provider**

The DRRR offers laboratories from the processing industry as well as official and private laboratories all aspects of quality assurance from one single source. Our focus is on food, consumer goods, packaging, building materials, plastics (polymers) and textiles, as well as microbiological analysis in these categories.

# Accreditation ISO/IEC 17043:2010 (A2LA)

The DRRR is an accredited proficiency testing provider by A2LA according to ISO/IEC 17043:2010. The accreditation is only valid for the matrices/parameters listed on the A2LA scope of accreditation certificate [#5494.01].

Whether a proficiency test is covered or not covered by the scope of accreditation by A2LA can be viewed in our online portal (ODIN).

# Accreditation DIN EN ISO/IEC 17043:2010 (DAkkS)

The DRRR is an accredited proficiency testing provider by DAkkS according to DIN EN ISO/IEC 17043:2010. The accreditation is valid only for the scope listed in the annex of the accreditation certificate [D-EP-17063-01-00].

Whether a proficiency test is covered or not covered by the scope of accreditation by DAkkS can be viewed in our online portal (ODIN).

# **Reference material producer**

We offer many certified reference materials as well as advise on quality matters and quality assurance training in the laboratory and the production.

# **Customer support**

We provide advice to our customers in all question of validation of chemicalphysical, microbiological, organoleptic and physical-mechanical analysis or statistical questions. Referen Ringve Referen

Deutsches Referenzbüro für Ringversuche und Referenzmaterialien

# More than 500 PT's in 2023

# Accredited PT-provider



High-quality reference material

Any time competent contact persons

# **Medical devices**

Medical devices include all instruments, substances, objects, machines and software that are used in humans for physical therapeutic and diagnostic purposes. In Germany alone, there are over 450,000 different medical devices on the market. The ISO 10993 series of standards describes the testing of medical devices for their biological safety. Biocompatibility testing must be performed for all new approvals and when products are modified.

In our new proficiency test program we focus on chemical characterization and offer 3 new proficiency tests in addition to the already existing chemical and microbiological proficiency tests in the field of medical devices:

#### 1 Gravimetric determination of extractable substances

Following ISO 10993-12 and ISO 10993-18, the extractable substances are to be determined gravimetrically by total immersion of the test specimens in the simulants n-hexane and iso-propanol. Test conditions: 50°C, 72 h.

#### 2. Extractables & Leachables

Qualitative and quantitative determination: In accordance with ISO 10993-18, a finished extract should first be examined qualitatively using a screening method. Positive results can be determined quantitatively. The E&L are typical substances from the fields of UV absorbers, anti-aging agents, plasticizers, slipping agents, fatty acids and ketones. Possible analysis methods: GC-MS and LC-MS.

#### 3. Extraction of elements (ISO 10993-12)

As a supplement to our proficiency test for the extraction of metals, various elements are to be quantitatively analyzed here, e.g. calcium, phosphorus, magnesium, fluorine, manganese, chromium, iodine and selenium. There will be at least 5 elements in the samples.

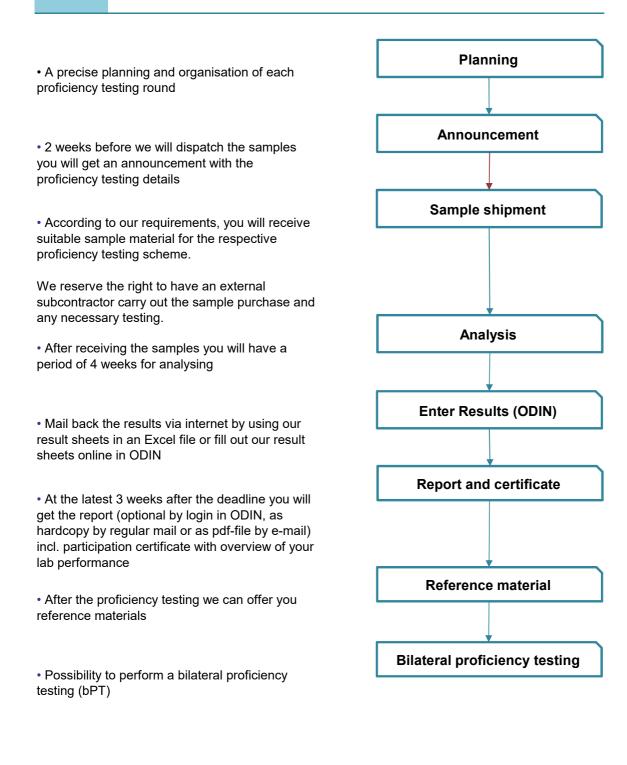
This year's new proficiency tests were added to our program in cooperation with laboratories from the field of medical device testing during the 1st meeting of the DRRR working group "Medical Devices". If you are interested in participating in the working group, please feel free to contact us (info@drrr.de). The two focus areas in 2024 will be Cell Culture / Microbiology / Sterility and Extractables / Leachables / Packaging Testing, for which we will form 2 subworking groups.

Simply brilliant, your proficiency testing with ODIN (Online Data Information Network).	€
<ul> <li>Fast and easy online registration / online announcement in our online catalogue</li> </ul>	Book Ringtrials Online
<ul> <li>Direct management and booking of the proficiency testing</li> </ul>	
<ul> <li>Overview about the registered proficiency testing schemes</li> </ul>	Proficiency testing catalog
• Fast and secure submission of your results via ODIN	
<ul> <li>Online access to individual customers reports and certificates</li> </ul>	Enter Results Online
<ul> <li>Supervisor rights available to overview all PTs of a multi-site company</li> </ul>	N Dealed an Estimate for
	Booked proficiency testings
• Saving of costs through booking and submission of your results via ODIN	
Secure payment with IRIS (Internet Remuneration Information Service).	Download Reports and Certificates
<ul> <li>Easy and safe payment by credit card</li> </ul>	
	> Booked proficiency testings
Overview about all invoices	

You can also pay your invoice via banktransfer or bank check.

• Fast and secure online access

# Proficiency testing organisation



# Why take part in proficiency testing?

• Participation in proficiency testing schemes is required by international standards or national facilities, organizations and customers

• Participants can compare, assure and improve their own performance and quality against other laboratories worldwide

• Laboratories can recognize how well they have been completed with the applied method compared to the other laboratories

- · Saving on the costs of testing
- Unquestionable lab performance towards customers, authorities and certification authorities
- Saving on the costs of lab development and maintenance
- Saving on the costs of lab development and maintenance
- Saving on production costs by avoiding waste of raw material

# Your benefits in DRRR proficiency testing schemes

• Objective and independent impression of your quality and your performance of your routine testing method compared to the other participating laboratories

• Saving the costs, because you have the opportunity to analzye more samples and more parameters in one proficiency testing

• External demonstration of your performance with the results of the proficiency testing

• Build up of your own external quality assurance system with our statistical tools (contains statistical control charts, MS-Excel evaluation files and reference materials). With these tools incorporated your external quality assurance rays unmatched confidence

• Detailed planning and organization of your proficiency testing and an easier, faster and better communication with us



Image source: iStock.com/3dts

# **Statistical methods**

# We work according to:

- ISO Guide 31 / 35
- DIN EN ISO 17034
- DIN EN ISO/IEC 17020 / 17025 / 17043
- ISO 13528

### Laboratory performance:

by calculation of the following paramters:

- z-score
- z'-score
- CRD-Wert

# Statistical models:

Depending on the type of the distribution of the data, different statistic models are used:

- Conventional statistics (all values)
- · Conventional statistics (no outliers)
- Robust statistics

(Hampel estimator, Q-method)

- Robust statistics
- (Median, MAD/nIQR)
- Expert laboratory (expert decision)

Method-specific evaluation according to the reference method (if available)

Homogenous and stable sample material

Calculation of precision data acc. to ISO 5725-2 in many proficiency testing schemes

Selection of statistical method with the chi<sup>2</sup>-fit test

Additional extended method evaluation (in case data are available)



# You are not satisfied with your laboratory performance: What can you do?

Due to your showed laboratory performance you have been asked by the accreditation body, the monitoring authority or your customer to initiate measures to improve your laboratory performance.

These measures are often connected with considerable efforts in the laboratory and you only have a short time frame. In many cases the proof of a successful measure processing, by participation in a new proficiency testing round, is only possible in the following year. Until now it does not exist a possibility for a spontaneous performance review to equalize a previous unsatisfactory proficiency testing result.

# New: The bilateral proficiency testing (bPT)!

You can book and perform individually and flexibly the bilateral proficiency testing during a determined time period.

You receive a proficiency testing sample for analyzing. You submit the results of the testing. After that you will get your proof of performance as a z'-score calculation in the form of a certificate within 1 - 2 weeks.

The performance evaluation refers to the previous regular proficiency testing, so that you can connect the bPT to the regular proficiency testing round. The used sample material is derived from a previous proficiency testing round and provides the possibility of a comparable performance evaluation with the regular proficiency testing.

### Your terms and conditions:

Participation in a bPT is open to all laboratories. Prior participation in our regular proficiency tests is not necessary.

The report of this proficiency testing is not older than ten weeks. You register within these ten weeks for the bPT and the performance is confirmed by the DRRR. The testing period is dependent on the technical factors (parameter, matrix etc.) and will be agreed individually\*. When this time is over after the sample shipment and you do not have sent us your results in this time, we can not evaluate your results and issue a certificate for you.

(\* normally not longer than 1 - 2 weeks) The bPT is not in the scope of accreditation of the DRRR. The realization of the bPT depends on the availability of the material.

### Costs bPT

The costs are identical to the costs of the respective proficiency test from our standard program (see ODIN) plus shipping costs.

Alternative you can also order reference material.

## **Features**

The inspectors of the DRRR-team are represent in different national and international committees and working groups. Thus we ensure that the DRRR quality assurance systems are available for new and up-to-date questions in all cases, if the laboratories start to establish the routine method. Due to the intensive professional exchange in the committees, it is ensured that the proficiency testing design is conformed to the new developments and the laboratories have the highest possible benefits in a participation in the proficiency testing. national and international committees and working groups

# **Testing with matrix reference**

Whenever possible, real matrices e.g. films, textiles, cardboard and cosmetics are used. This ensures that our proficiency testing schemes have an actual matrix reference and the sample preparation is part of the proficiency testing.

# Matrix reference

## **Statistical evaluation**

Take advantage of our statistical evaluation system. The evaluation of the proficiency testing is based on the highest scientific and statistical level. Therefore the participating laboratories have a very precise feedback on their actual performance.

### **Laboratory Measurement**

By using our market-leading statistical evaluation, additional information such as laboratory uncertainty and various scattering of each laboraotires can be presented. Evaluation

Market-leading statistical evaluation

# chemical-physical proficiency testing

For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (<u>www.DRRR.de</u>). You can also use the registration forms on page 14 of this catalogue.

# medical devices

Art. No.	Proficiency testing type <sup>[A]</sup>	requested parameters	period	To view pricing information visit our online Portal:
2010375	Medical devices - Ethylene oxide residues (ISO 10993- 7) 1	CAS 75-21-8 (Ethylene oxide), CAS 107-07- 3 (Ethylene chlorohydrin)	Jun-24	Login or register
2010377	Medical devices - Ethylene oxide residues (ISO 10993- 7) 2	CAS 75-21-8 (Ethylene oxide), CAS 107-07- 3 (Ethylene chlorohydrin)	Jun-24	
2010379	Medical devices - Extraction of metals (ISO 10993-12)	Cadmium, lead, iron, aluminum, copper, zinc, mercury, nickel and arsenic (min. 5 of the metals contained)	Jun-24	
2010381	Medical devices - Qual. characterization (ISO 10993- 18)	qualitative identification of the material, e.g. different plastics	Jul-24	
2010383	Medical devices - Quan. characterization (ISO 10993- 18) - XRF	Determination of the elements using XRF	Jul-24	
2010385	Medical devices - Quan. characterization (ISO 10993- 18) - Formaldehyde	Formaldehyde	Jul-24	
2010387	Medical devices - Degradation products from ceramics (ISO 10993-14) 1	Mass of the filter residue and mass of the dissolved material	May-24	
2010389	Medical devices - Degradation products from ceramics (ISO 10993-14) 2	Quantitative determination of the elements in the test solution	May-24	
2010391	Medical devices - Loss of polymer mass (ISO 10993- 13) 1	Loss of mass of the sample in the test solution water	Aug-24	
2010393	Medical devices - Loss of polymer mass (ISO 10993- 13) 2	Loss of mass of the sample in the test solution water	Aug-24	

Suitable laboratory equipment is required for participation in the proficiency testing schemes.

[A] = For accredited and non-accredited status please see Online portal (ODIN)

11

# 12 chemical-physical proficiency testing

For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (<u>www.DRRR.de</u>). You can also use the registration forms on page 14 of this catalogue.

Art. No.	Proficiency testing type <sup>[A]</sup>	requested parameters	period	To view pricing information visit our online Portal:
2010961	Medical devices - Protein residues	protein quantitative and qualitative	Sep-24	Login or register
2011168	Medical devices - Gravim. determination extractables	Following ISO 10993-12 and ISO 10993-18, the extractable substances are to be determined gravimetrically by total immersion of the test specimens in the simulants n-hexane and iso-propanol. Test conditions: 50°C, 72 h.	Jul-24	
2011169	medical devices - extractables & leachables	Qualitative and quantitative determination: In accordance with ISO 10993-18, a finished extract should first be examined qualitatively using a screening method. Positive results can be determined quantitatively. The E&L are typical substances from the fields of UV absorbers, anti-aging agents, plasticizers, slipping agents, fatty acids and ketones. Possible analysis methods: GC-MS and LC- MS.	Aug-24	
2011159	medical devices - extraction of elements (ISO 10993-12)	Calcium, phosphorus, magnesium, fluorine, manganese, chromium, iodine, selenium (minimum 5 elements quantitative)	Sep-24	

# medical devices

Suitable laboratory equipment is required for participation in the proficiency testing schemes.

# [A] = For accredited and non-accredited status please see Online portal (ODIN)

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# 13 microbiological proficiency testing

For your registration we recommend to use our online catalogue (ODIN) or the registration forms on our homepage (<u>www.DRRR.de</u>). You can also use the registration forms on page 14 of this catalogue.

Art. No.	Proficiency testing type <sup>[A]</sup>	requested parameters	period	To view pricing information visit our online Portal:
2010696	testing of sterilization of medical devices 1 (ISO 11737-1) risk group 1	aerobic total count quantitative (2 transparent bags)	Jun-24	Login or register
2010964	testing of sterilization of medical devices 2 (ISO 11737-1) risk group 1	<b>yeasts quantitative</b> (2 samples)	Jun-24	
2010966	testing of sterilization of medical devices 3 (ISO 11737-1) risk group 1	<b>moulds quantitative</b> (2 samples)	Jun-24	
2010968	testing of sterilization of medical devices 4 (ISO 11737-1) risk group 1	<b>aerobic spores quantitative</b> (2 samples)	Jun-24	
2011171	testing of sterilization of medical devices 5 (ISO 11737-1) risk group 1	anaerobic spores quantitative (2 transparent bags)	Jun-24	
2010281	Tests for in vitro cytotoxicity (ISO 10993-5)	<b>Tests for in vitro cytotoxicity (ISO 10993-5)</b> (2 samples)	Nov-24	
2010283	Testing the germ tightness of packaging materials	Testing the germ tightness of packaging materials (2 samples)	Nov-24	
2010657	Identification of microorganisms using MALDI-ToF risk group 2	Identification of microorganisms using MALDI-ToF (1 sample)	Nov-24	
2010321	Test method Medical face masks (EN 14683)	Bacterial filter efficiency and pressure difference (1 sample á 12 face masks)	May-24	
2010567	microbiological analysis of endoscopes risk group 2	Germ identification on rinse water (3 samples)	Oct-24	

# medical devices

[A] = For accredited and non-accredited status please see Online portal (ODIN)

# registration form proficiency testing

Deutsches Referenzbüro für Ringversuche und Referenzmaterialien

Article No. / proficiency testing type	period	result release and report online (ODIN)	result release by e- mail / fax; report by e- mail	additional sample sets

For proficiency testing schemes labelled with "risk group 2, or 3\*\*" we need a permission or an exemption for working with pathogenic microorganisms of your lab if existing in your country (e.g. "infection protection law (IfSG)" in Germany). The appropriate form you can find in the product catalogue on page 20.

Up to nine additional result sheets can be returned for chemical-physical, microbiological and physical-mechanical proficiency testing rounds are free of charge. As a participant, you benefit from our international recognized proficiency testing schemes. By submitting up to ten result sheets you are now enabled to run international comparisions to check different methods and different lab technicians with one proficiency testing round. Your benefit: Participating in DRRR-proficiency testing services save costs for your quality assurance! If you need additional sample sets, you have the opportunity to order it according to our latest product catalogue.

Please note, that the free of charge service is only valid for returning result sheets by ODIN. If you send us your results by mail, fax or postal delivery, the additional result sheet will be charged according the latest product catalogue as a sample set equivalent.

In very rare individual cases an accredited proficiency testing round will not be carried out within the scope of accreditation due to technical or organizational reasons. In these rare cases the DRRR will inform the participants before the start of the proficiency testing round, thus before the sample shipment. An immediately free cancellation for the participants is possible until the date of the sample shipment.

Your registration is an one-time order. It is only valid for one year. Cancelation fees apply when cancelling a registration. If you want to have a permanent-registration please tick the box on the right side.

14

Please send registration to: fax-no. +49 (0)8 31/960 878-99 e-mail: <u>info@DRRR.de</u> online via <u>www.odin.drrr.de</u>

- O this registration is permanent-registration and valid until my cancelation
- O An offer with the total costs is needed
- O A Purchase order from the purchasing department will follow

DRRR-customer number	
company	
company (additional line)	
a sustainat managem	
street	
post-code /city	
fon	
fax	
e-mail	
e-mail for invoices	
VAT-ID-No. (if available)	
Vith your signature you agree	

with your signature you agree with our general terms and conditions.

date

signature

# Terms of payment

Our prices are net prices (plus 19% value added tax). Customers from European countries can provide us with their EU-VAT-Identification number, then they will be exempt from German value added tax. Terms of payment: 8 days net, without deduction Fees for specially required customs documents such as import permits or similar will be invoiced according to time and effort.

Our bank details: Raiffeisenbank in Allgäuer Land / bank code 733 692 64 Account 102350 / IBAN DE 94733692640000102350 BIC code: GENO DEF1DTA Sales tax ID no. DE254613132 tax number 127/124/32207

# Terms of delivery

Shipping costs for reference materials and proficiency tests will be invoiced according to time and effort. All samples and packaging materials are the property of the DRRR. Samples that are used for nondestructive testing and are therefore not subject to destruction in the course of the proficiency test can be reclaimed by the DRRR upon request. The DRRR shall bear the shipping costs for the return transport if the materials are reclaimed.

Proficiency tests or reference materials marked "frozen" are shipped with our ADR safety tested frozen packaging system. A packaging fee is charged for the polystyrene box including cooling accumulators and air bubble film as well as the protective outer packaging. Frozen materials are shipped by express service. With the delivery of reference materials, you will receive a quality certificate with the details of the respective reference values as well as associated uncertainties.

# Terms of delivery (risk group 1, 2 and 3)

Proficiency tests or reference materials marked with "Risk Group 1" are not subject to any participation restrictions according to § 44 IfSG (Infektionsschutzgesetz).

For proficiency tests or reference materials marked with "risk group 2, or risk group 3<sup>\*\*</sup>", we need a permission from your laboratory according to § 44 IfSG (Infektionsschutzgesetz) or similar. Please enclose a copy of the permission with your registration or order.

Our general terms and conditions (Allgemeine Geschäftsbedingungen) are valid!

The German reference office for proficiency testing and reference materials GmbH (hereinafter referred to as DRRR) for freely agreed services, in particular testing, training and expert activities as well as reference materials.

# § 1 General terms and conditions

The client acknowledges the General Terms and Conditions and price lists valid at the time of placing the order. Deviating terms and conditions of individual clients cannot be accepted.

Collateral agreements, promises and other declarations by the employees of the DRRR are only binding if they are expressly confirmed in writing by the DRRR. This shall also apply to amendments to this clause. If individual regulations within this contract or its components are ineffective, this does not affect the validity of the remaining regulations. The contracting parties shall have a duty, acting in accordance with the principles of good faith, to replace any invalid provision by one which is valid and which produces the same economic outcome as that intended by the invalid provision and providing that such replacement does not result in any change to the content of the contract; the same shall also apply analogously to any matter which requires regulation but for which no provision is made in these Terms and Conditions.

## § 2 Execution of the order

The orders accepted by the DRRR shall be carried out or expert opinions shall be prepared in accordance with the recognized rules of technology and – unless otherwise agreed in writing – in the manner customary at the DRRR. No responsibility shall be assumed for the correctness of the safety programs or safety regulations on which the tests are based, unless expressly agreed otherwise in writing.

The scope of the DRRR's work shall be specified in writing when the order is placed. If the proper execution of the order results in changes or extensions to the specified scope of the order, such changes or extensions shall be agreed in writing prior to execution. If the Customer can no longer be reasonably expected to adhere to the contract with regard to the changes or extensions, the Customer shall in this case be entitled to withdraw from the contract. However, according to § 649 BGB, the client must pay the agreed remuneration or, in the absence of an agreement, an appropriate remuneration.

The contractual services of the DRRR are deemed to have been rendered upon preparation of the respective final reports or expert reports.

A seminar registration can be cancelled free of charge for up to 6 weeks, after which the customer will be invoiced for the costs of the participants depending on the time and effort involved.

The following cancellation conditions apply to the cancellation of a proficiency testing:

Consolution notification pariod	Permanent registration (D)		
Cancelation notification period:	single (one-time) registration (E)		
up to 2 months before the preficiency testing	no costs (D)		
up to 3 months before the proficiency testing	50,00 € (E)		
2 months before the preficiency testing start	50,00 € (D)		
3 months before the proficiency testing start	half proficiency testing price (E)		
sample shipment – deadline of the results	complete price of the proficiency testing and any further incurred costs (D & E)		

### § 3 Deadlines

The order deadlines specified by the DRRR shall not be binding unless their binding nature has been expressly agreed in written form.

17

General terms and conditions

# § 4 Warranty and liability

The integrity of the sample material to a defined condition is only guaranteed until the first border crossing in the case of foreign shipments.

Safety note: When sending materials of risk group 2, the DRRR must receive a letter from the recipient stating that the recipient is authorized to handle hazardous materials (e.g. pathogenic germs).

The DRRR's warranty only covers the services expressly commissioned to it pursuant to Section 2. No warranty is thereby assumed for the correctness and functioning of the relevant overall system, measuring instruments or materials to which the examined or tested samples belong; in particular, the DRRR bears no responsibility for packaging, material selection and construction of the examined systems, measuring instruments or assemblies, unless these issues are expressly the subject of the order.

Even in the latter case, the warranty obligation and legal responsibility of the manufacturer are neither limited nor assumed.

The warranty obligation of the DRRR is limited to the rectification of an error or defect or, in the absence of a warranted characteristic, to the achievement of this characteristic within a reasonable period of time. If the rectification or creation of the characteristic fails, i.e. if it becomes impossible or unreasonable for the Customer or is refused or unduly delayed by the DRRR, the Customer shall be entitled to demand a reduction in the remuneration or rescission of the contract, at its discretion.

The DRRR shall not be liable for any work performed by the Customer in the event of incorrect proficiency tests or reference materials.

The DRRR only assumes liability for certain properties, in particular for the fact that the service is suitable for the purposes of the Customer, if a corresponding assurance of the properties in question has been given. Any liability for consequential damages from positive breach of contract due to warranted characteristics is excluded, unless the warranty was intended to protect against such consequential damages. Claims for damages of the client from §§ 463, 635 BGB due to the lack of assured characteristics remain unaffected.

If an error or defect that does not represent the absence of a warranted characteristic is due to a circumstance for which the DRRR is responsible, the DRRR shall only be liable for any damage incurred by the Customer as a result thereof per order up to a maximum amount that corresponds to the value of the order agreed in accordance with Section 2.

The materials may only be used for the corresponding scientific purpose by trained qualified personnel. The DRRR is in no case responsible and liable for used, unused or unusable samples.

The samples are intended for analytical purposes only. The DRRR assumes no liability if the samples are not used for the intended analytical purposes.

All materials are definitely not suitable for human consumption unless they are sensory materials. Oral ingestion of materials not intended for sensory purposes can be harmful to health.

In the case of sensory materials, it is the responsibility of the test persons themselves to check whether they can test the materials with regard to allergies. The ingredients of the sensory materials are declared.

All samples and packaging materials are the property of the DRRR. Samples that are used for non-destructive testing and are therefore not subject to destruction in the course of the interlaboratory comparison can be reclaimed by the DRRR upon request. The DRRR will bear the shipping costs for the return transport, if the materials are reclaimed.

The analytical properties of the material can only be guaranteed if the transport, storage and use conditions specified by the DRRR are observed.

For frozen samples, the DRRR only guarantees that the samples will be treated in accordance with the material properties stated in the data sheet. For frozen samples delivered to countries outside the EU, we can only guarantee the sample properties up to the first customs clearance point at the respective EU border.

#### § 5 Exclusion of further liability and claims

The risk (transport and remuneration risk) shall pass to the Customer as soon as the goods have left the DRRR, regardless of whether the goods are transported by the Customer's own or third-party means of transport. Claims for damages by the client are excluded. This does not apply to intent, gross negligence, breach of essential contractual obligations of the DRRR or the lack of properties guaranteed in writing.

All further claims of the client for direct and indirect damage – for whatever legal reason – in particular claims for damages due to positive breach of contract or from tort and for compensation for damage that did not occur on the object of the order itself are excluded. Irrespective of this, the client is obliged to take out the usual insurance against direct and indirect damage.

General terms and conditions

# § 6 Remuneration and payment terms

Unless otherwise stated, the prices are in euros and do not include value added tax. This will be invoiced separately at the currently applicable rate in accordance with the applicable tax regulations. The goods remain the property of DRRR until they have been paid for in full by the customer.

The fees according to the DRRR's currently valid List of Services shall apply to the calculation of the services unless a fixed price or another basis of assessment has been expressly agreed in writing. In the absence of a valid specification of services, individual contractual arrangements shall be made in each case. Advances on costs can be requested. Partial invoices can also be issued in accordance with the services

Advances on costs can be requested. Partial invoices can also be issued in accordance with the services rendered. Partial invoices need not be marked as such. The receipt of an invoice does not mean that the DRRR has fully invoiced the order.

The fees are due for payment immediately after invoicing, at the latest by the date printed on the invoice (8 days net, without deduction). Unless another arrangement has been made. If payment is made at a later date, default interest of 2% above EURIBOR will be charged on the outstanding invoice amount for the period between the due date and receipt of payment.

Objections to the invoices of the DRRR must be notified in writing within a preclusive period of 14 days after receipt of the invoice, stating reasons.

## § 7 Confidentiality and copyright

The DRRR reserves the copyrights to the expert opinions, test results, calculations, etc. prepared by it. The DRRR and its employees may not unauthorizedly disclose or exploit business and operating relationships that come to their knowledge in the course of their work.

The DRRR may take copies for its files of written documents that have been made available to the DRRR for inspection and that are of importance for the performance of the assignment.

If the proficiency test report and the laboratory code are sent by e-mail, no guarantee can be given that confidentiality will be ensured.

## § 8 Place of jurisdiction, place of performance, applicable law

The place of jurisdiction for the assertion of claims for both parties to the contract is Kempten, provided that the conditions according to § 38 of the German Code of Civil Procedure are met. This applies in particular to dunning proceedings.

The place of performance for all obligations arising from the contract is Kempten, the contractor's registered office.

The contractual relationship and all legal relationships are subject exclusively to the law of the Federal Republic of Germany applicable between domestic contracting parties, excluding the Uniform Law on the Sale of Goods and the United Nations Convention on Contracts for the International Sale of Goods.

### § 9 Guarantee of services and goods from cooperation partners

For reference materials sold on behalf of our cooperation partners, the following conditions apply with regard to liability and warranty:

The liability of our cooperation partners, their legal representatives and vicarious agents is limited to cases of intent, gross negligence, absence of a warranted characteristic and breach of an obligation, the non-compliance of which would endanger the purpose of the contract. The liability for proven damages due to grossly negligent conduct is limited to the amount of the contractual remuneration; no liability is assumed for consequential damages. Liability is limited to the use of the reference materials for the purposes described in the respective certificate.

Our cooperation partners guarantee the application of scientific diligence as well as compliance with the recognized rules of technology.

Our cooperation partners are entitled to rectify any defects that occur. If the rectification of defects fails, the client is entitled to demand a reduction of the remuneration or cancellation of the contract at his discretion. Further warranty claims are excluded.

The warranty is limited to the stated expiration date of the reference materials.

This applies to: ieLab, TGZ AQS Baden-Württemberg

# Responsible person:

name, surname
street
post code, city
fon
e-mail

Please tick as approprate and enclose the necessary documents:

Posession of a permission for working with pathogenic microorganisms if existing in your country?

- **O** yes (please enclose copy)
- O no

Posession of an exemption for working with pathogenic microorganisms if existing in your country?

- **O** yes (please enclose verification document)
- O no

Only for german customers the posession of a permission acc. to §44 3 IfSG (german infection protection law) or an exemption acc. §45 IfSG is obligatory.

- O yes (please enclose copy or verification document)
- O no

Because of the fact that this permission usually is person-linked, so please inform us immediately if there is a turnover of staff and send an updated version of the permission to DRRR GmbH.

date

signature