

SWISS PROFICIENCY



SWISS INSTITUTE
FOR INTERLABORATORY
PROFICIENCY

A division of



Qualitech

International leader with a unique background

The Swiss Institute for Interlaboratory Proficiency of Eurofins Qualitech AG is Switzerland's leading internationally-oriented, ISO/IEC 17043 accredited proficiency testing provider specializing in the testing and analysis of materials over the entire spectrum from metals and ceramics to polymers and other organic materials.

The Institute relies on the unique professional background of Eurofins Qualitech AG, the leading independent materials testing center in Switzerland. **It applies the expertise and passion of more than 100 specialists**, who on a daily basis perform countless ISO/IEC 17025 accredited materials tests and analyses in the company's own state-of-the-art laboratory facilities, to professionally and confidentially evaluate your data.

Proficiency tests provided by Eurofins Qualitech's Swiss Institute for Interlaboratory Proficiency are managed and executed by a core group of committed and comprehensively-trained staff members with many years of experience from a variety of technical and academic – primarily Ph.D. – backgrounds.

ISO / IEC 17043 accreditation

The Swiss Institute for Interlaboratory Proficiency is accredited according to ISO/IEC 17043. The accreditation also applies to all our proficiency test offerings.

We guarantee highest quality for the materials used in the round robins. Be it metallic alloys, ceramics or polymers: Every material is tested in our laboratories with regard to conformity and homogeneity before release.



[swissproficiency.com](https://www.swissproficiency.com)

Leadership Team

Mario Rieder, Institute Head
Dr. Günter Dörner, Deputy Institute Head, Polymers Expert
Dominik Oehler, Deputy Institute Head, Statistics Coordinator

Technical Committee

Dr. Michael Schinhammer, Materials and Corrosion Expert
Dr. Markus Wegmann, Materials Expert
Dr. Katja Lemster, Chemical Analysis Expert
Dr. Alessio Plas, Chemical Analysis Expert
Dr. Juxing Bai, Materials and Statistics Expert

Why participate in proficiency testing?

The goal of proficiency tests (also known as interlaboratory comparisons, or round robins) according to ISO/IEC 17043 is to determine the performance of each of the participating laboratories under identical boundary conditions. The laboratories are given the opportunity to monitor their testing competence and, if necessary, to improve their quality.

Based on the results of proficiency testing and the ensuing conclusions, systematic and laboratory-specific sources of error can be identified and appropriate corrective measures can be implemented. The corrective actions should modify a given laboratory's procedures in such a way that a significant improvement in performance can be identified when the laboratory repeats the proficiency test.

Not only is the successful participation in ISO/IEC 17043 proficiency testing an extra tool that regulatory authorities and accreditation bodies use in assessments for compliance with ISO/IEC 17025; it is also proof of laboratory's competence for its customers.

Swiss Proficiency: We keep your business safe.



Our Leadership Team



Leadership Team

Mario Rieder
Institute Head

Dr. Günter Dörner
Deputy Institute Head, Polymers Expert

Dominik Oehler
Deputy Institute Head, Statistics Coordinator

Our Scientific Team

Members of the Technical Committee

Dr. Michael Schinhammer
Materials and Corrosion Expert

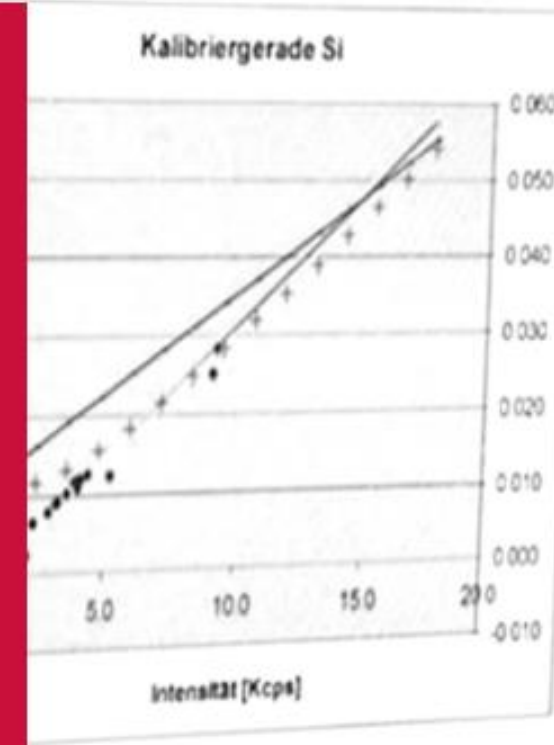
Dr. Markus Wegmann
Materials Expert

Dr. Katja Lemster
Chemical Analysis Expert

Dr. Alessio Plas
Chemical Analysis Expert

Dr. Juxing Bai
Materials and Statistics Expert

Standardunsicherheit wird als erweiterte Unsicherheit bezeichnet.



Unsicherheitsschranken (gelbe Linien). Die
aufgrund des Messverfahrens dar
linear angenähert.

bestimmt:

umfasst wird die Messunsicherheit
ung von $u_{messung}(c) \approx u_0 + u_1 \cdot c$ gemäss Tabelle 2
Systeme für die Unsicherheit der Korrektur ($r(k)$)

$$u^2(c) = u_{kal}^2(c) + \frac{u^2(I_{kor})}{A_1^2}$$

Zur Unsicherheit des korrigierten Intensitätswerts trägt die
sowie die Unsicherheit des Korrekturfaktors.

$$\frac{u^2(I_{kor})}{A_1^2} = \frac{I_{kor}^2}{A_1^2} r^2(I_{kor}) \stackrel{Glg.(4,10)}{\approx} c^2 (r^2(I) + r^2(k))$$

Für die Unsicherheit des Einzelmesswerts $r^2(I)$ wird die
nung verwendet. Die Umrechnung auf die Intensitätsunsicher

$$c^2 r^2(I) = c^2 \frac{u^2(I)}{I^2} \approx c^2 \frac{A_1^2}{I^2 k^2} u_{Einzelmesswert}^2(c) = u_{Einz}^2$$

Damit lassen sich Glg.(11-13) zusammenfassen zu:

$$u^2(c) = u_{messung}^2(c) + u_{matrix}^2(c)$$

$$u_{messung}^2(c) = u_{kal}^2(c) + u_{Einzelmesswert}^2(c)$$

$$u_{matrix}^2(c) = c^2 r^2(k)$$

Weil die Kalibrierunsicherheit anhand bekannter Referenz
rekturen bestimmt wurde, genügt sie bei der Massenanteil
Probe nicht. Darf die gleiche Matrix wie bei einem Referer
wird für $r(k)$ auch die Unsicherheit gemäss Glg.(8) angenom
 $r(k)$ neu geschätzt werden.

Figur 2 zeigt am Beispiel von Chrom, dass die Unsicher
Bereich linear angenähert werden kann.

Our Programme 2023

version 01, 12.09.2022		Price (excl. VAT and shipping costs)		
		CHF	EUR	USD
Chemical Analysis				
EP0501	Chemical Analysis: Low-Alloy Steel	365	365	365
EP0502	Chemical Analysis: High-Alloy Steel	365	365	365
EP0511	Chemical Analysis: Aluminium Alloy	365	365	365
EP0512	Chemical Analysis: Titanium Alloy	420	420	420
EP0513	Chemical Analysis: Nickel Base Alloy	380	380	380
EP0514	Chemical Analysis: Copper Base Alloy	365	365	365
EP0521	Determination of N, O, H in Steel	525	525	525
EP0522	Determination of N, O, H in Titanium Alloy	545	545	545
EP0531	Microscale Analysis EDX: 5 Materials	710	710	710
EP0541	X-Ray Powder Diffraction	420	420	420
EP0551	Chemical Analysis: RoHS / REACH	485	485	485
Mechanical Testing				
EP0201	Tensile Test on Steel according to ISO 6892-1	420	420	420
EP0203	Hot Tensile Test on Steel according to ISO 6892-2	420	420	420
EP0251	Impact Test according to ISO 148-1	775	775	775
Hardness Testing				
EP0001	Brinell Hardness Test according to ISO 6506 (HBW)	385	385	385
EP0002	Vickers Hardness Test according to ISO 6507 (HV1, HV10)	535	535	535
EP0003	Rockwell Hardness Test according to ISO 6508 (HRC)	385	385	385
EP0011	Vickers Hardness Profile according to ISO 18023 (CHD HV1)	560	560	560
Metallography				
EP0102	Grain Size Determination according to ISO 643	315	315	315
EP0103	Cast Iron: Graphite Classification according to ISO 945-1	315	315	315
EP0104	Determination of the Phase Content in Metallic Alloys	315	315	315
Polymer Analyses				
EP0311	FTIR: Polymer Type Determination	400	400	400
Corrosion Testing				
EP0601	Salt Spray Test according to ISO 9227 NSS	385	385	385
Particle Size Analyses				
EP0401	PSA of Ceramic Particles	360	360	360

Detailed time schedule	2023
Registration deadline:	28 July 2023
Samples shipment:	End of August 2023
Deadline data transmission:	13 October 2023
Report:	End of November 2023



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Visit us at swissproficiency.com/en!



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SWISS PROFICIENCY

The Swiss Institute for Interlaboratory Proficiency symbolizes the professional execution of proficiency tests – trustworthy, uncomplicated and customer-focused.

The Swiss Institute for Interlaboratory Proficiency of Eurofins Qualitech AG is the leading internationally-oriented, ISO/IEC 17043 accredited proficiency testing provider (PTP) specializing in the testing and analysis of materials over the entire spectrum from metals and ceramics to polymers and other organic materials.

[Current proficiency tests](#)

[How do I participate?](#)

Current Proficiency Tests

Choose one of the categories listed below for more information regarding our proficiency tests as well as for ordering.



[Chemical analyses](#) →



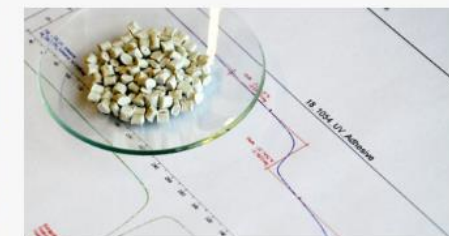
[Mechanical testing](#) →



[Hardness testing](#) →



[Metallography](#) →



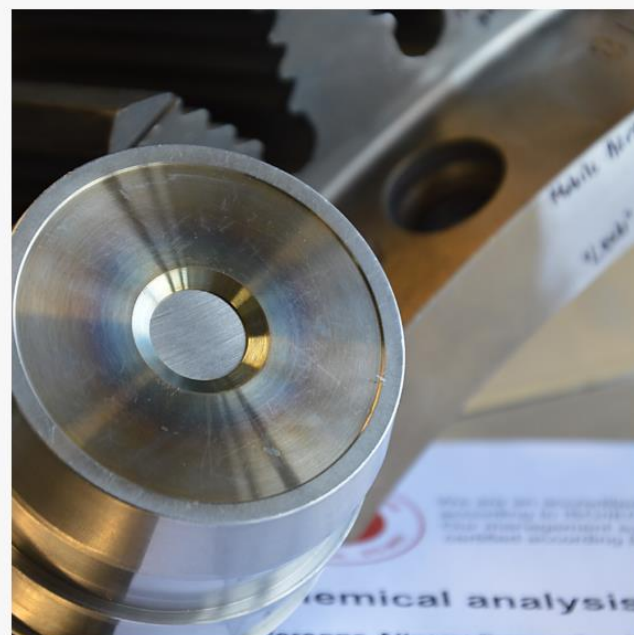
[Polymer analyses](#) →



[Corrosion testing](#) →

EP0501

Chemical Analysis: Low-Alloy Steel



- Measurement method: Free choice / usual method (e.g. optical emission spectrometry, glow discharge optical emission spectroscopy, X-ray fluorescence analysis, wet chemical methods)
Excluding methods of micro-range analysis, such as EDX or WDX
- Sample material: Low-alloy steel
- Sample description: Disc of dimensions $\varnothing 40 \times 12$ mm
- Measurement parameters: Contents of C, Si, Mn, P, S, Co, Cr, Mo, Ni, V, Al, Cu, Ti, Nb, W and Fe in wt.%(submission of a selection of elements is permitted)
- Test procedure: Multiple determinations
- Assigned value: Consensus value of participants
- Evaluation: According to ISO/IEC 17043 and ISO 13528
- Registration deadline: 28 August 2023
- Samples shipment: End of August 2023
- Deadline data transmission: 13 October 2023
- **Report: End of November 2023**

Currency: Price
EUR 365.00

Delivery costs and value added tax (7.7%) not included.

[Add to cart](#)

