

Accreditation



The Deutsche Akkreditierungsstelle attests with this **Accreditation Certificate** that the calibration laboratory

**SSW Prüfsysteme & Service GmbH Weißberg
Düsseldorfer Straße 217, 40721 Hilden**

meets the requirements according to DIN EN ISO/IEC 17025:2018 for the conformity assessment activities listed in the annex to this certificate. This includes additional existing legal and normative requirements for the calibration laboratory, including those in relevant sectoral schemes, provided they are explicitly confirmed in the annex to this certificate.


The management system requirements of DIN EN ISO/IEC 17025 are written in the language relevant to the operations of calibration laboratories and confirm generally with the principles of DIN EN ISO 9001.

This accreditation was issued in accordance with Art. 5 Para. 1 Sentence 2 of Regulation (EC) 765/2008, after an accreditation procedure was carried out in compliance with the minimum requirements of DIN EN ISO/IEC 17011 and on the basis of a review and decision of the appointed accreditation committees.

This accreditation certificate only applies in connection with the notices of 21.03.2022 with accreditation number D-K-17475-01.

It consists of this cover sheet, the reverse side of the cover sheet and the following annex with a total of 4 pages.

Registration number of the accreditation certificate: **D-K-17475-01-00**

in Vertretung 

Berlin, 05.06.2023

Dipl.-Wirtsch.-Ing. (BA) Tim Harnisch
Head of Technical Unit

Translation issued:

05.06.2023

Dipl.-Wirtsch.-Ing. (BA) Tim Harnisch
Head of Technical Unit

The certificate together with the annex reflects the status as indicated by the date of issue. The current status of any given scope of accreditation can be found in the directory of accredited bodies maintained by Deutsche Akkreditierungsstelle GmbH (www.dakks.de).

This document is a translation. The definitive version is the original German accreditation certificate.

See notes overleaf

Deutsche Akkreditierungsstelle GmbH

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The Deutsche Akkreditierungsstelle GmbH (DAkKS) is the entrusted national accreditation body of the Federal Republic of Germany according to § 8 section 1 AkkStelleG in conjunction with § 1 section 1 AkkStelleGBV. DAkKS is designated as the national accreditation authority by Germany according to Art. 4 Para. 4 of Regulation (EC) 765/2008 and clause 4.7 of DIN EN ISO/IEC 17000.

Pursuant to Art. 11 section 2 of Regulation (EC) 765/2008, the accreditation certificate shall be recognised as equivalent by the national authorities within the scope of this Regulation as well as by the WTO member states that have committed themselves in bilateral or multilateral mutual agreements to recognise the certificates of accreditation bodies that are members of ILAC or IAF as equivalent.

DAkKS is a signatory to the multilateral agreements for mutual recognition of the European co-operation for Accreditation (EA), International Accreditation Forum (IAF) and International Laboratory Accreditation Co-operation (ILAC).

The up-to-date state of membership can be retrieved from the following websites:

EA: www.european-accreditation.org

ILAC: www.ilac.org

IAF: www.iaf.nu

Deutsche Akkreditierungsstelle

Annex to the Accreditation Certificate D-K-17475-01-00 according to DIN EN ISO/IEC 17025:2018

Valid from: 21.03.2022

Date of issue: 05.06.2023

Holder of accreditation certificate:

**SSW Prüfsysteme & Service GmbH Weißberg
Düsseldorfer Straße 217, 40721 Hilden**

The calibration laboratory meets the requirements of DIN EN ISO/IEC 17025:2018 to carry out the conformity assessment activities listed in this annex. The calibration laboratory meets additional legal and normative requirements, if applicable, including those in relevant sectoral schemes, provided that these are explicitly confirmed below.

The management system requirements of DIN EN ISO/IEC 17025 are written in the language relevant to the operations of calibration laboratories and confirm generally with the principles of DIN EN ISO 9001.

This certificate annex is only valid together with the written accreditation certificate and reflects the status as indicated by the date of issue. The current status of any given scope of accreditation can be found in the directory of accredited bodies maintained by Deutsche Akkreditierungsstelle GmbH at <https://www.dakks.de>.

Annex to the Accreditation Certificate D-K-17475-01-00

Calibration in the fields:

Mechanical quantities:

Material testing machines (MTM)

- Force (MTM) ^{a)}
- Hardness (MTM) ^{a)}
- Extension (MTM) ^{a)}
- Mechanical work (MTM) ^{a)}
- Velocity (MTM) ^{a)}

^{a)} **only on-site calibrations**

The calibration laboratory is permitted, without being required to inform and obtain prior approval from DAkkS, to use calibration standards or equivalent calibration procedures listed here with different issue dates.

The calibration laboratory maintains a current list of all calibration standards / equivalent calibration procedures within the flexible scope of accreditation.

Annex to the Accreditation Certificate D-K-17475-01-00

On-site Calibration

Calibration and Measurement Capabilities (CMC)

Measurement quantity / Calibration item	Range	Measurement conditions / procedure	Expanded uncertainty of measurement	Remarks
Force (MTM) Force measuring device for Material Testing Machines according to DIN 51220	1 N to 3 MN	DIN EN ISO 7500-1:2018 DIN EN ISO 7500-2:2007 DIN EN ISO 148-2:2017	0.12 %	Force transducer (Class 0.5) compression
	1 N to 1 MN	DIN 51222:2017 DIN EN ISO 6506-2:2019 DIN EN ISO 6507-2:2018	0.12 %	Force transducer (Class 0.5) tensile
	0.1 N to 1 kN	DIN EN ISO 6508-2:2015 ASTM E 4:2020	0.10 %	mass stacks (compression and tensile)
Hardness (MTM) Hardness measuring device according to Brinell-, Vickers- and Rockwell test procedure	30 HBW to 650 HBW	DIN EN ISO 6506-2:2019 DIN EN ISO 6507-2:2018 DIN ISO EN 6508-2:2015 ASTM E 10a:2018 ASTM E 18:2020 ASTM E 92:2017	2 % HB	given uncertainty apply to indirect calibration with hardness test blocks
	60 HBW to 225 HBW		1.2 % HBW, but not $< 1.5 \cdot U_{CRM}$	
	226 HBW to 650 HBW		1 % HBW, but not $< 1.5 \cdot U_{CRM}$	
	200 HV to 840 HV		The uncertainty for each parameter of direct calibration is given separately U_{CRM} = calibration uncertainty of the hardness test blocks	1 % HV, but not $< 1.5 \cdot U_{CRM}$ 2 % HV, but not $< 1.5 \cdot U_{CRM}$
	(Hardness scales HV5 to HV100)			
	(Hardness scales HV0.01 to HV3)			
	20 HRA to 65 HRA		1.0 HRA	
	66 HRA to 88 HRA		0.5 HRA	
	20 HRB to 55 HRB		1.5 HRB	
	56 HRB to 100 HRB		1.0 HRB	
	20 HRC to 55 HRC		1.0 HRC	
	56 HRC to 70 HRC		0.5 HRC	
	60 HRF to 100 HRF		1.0 HRF	
	20 HRN to 91 HRN		1.0 HRN	
	12 HRT to 93 HRT		2.0 HRT	

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Annex to the Accreditation Certificate D-K-17475-01-00

On-site Calibration

Calibration and Measurement Capabilities (CMC)

Measurement quantity / Calibration item	Range	Measurement conditions / procedure	Expanded uncertainty of measurement	Remarks
Extension (MTM) Length variation measuring device for Material Testing Machines according to DIN 51220	0 mm to 60 mm	DIN EN ISO 9513:2013 ASTM E 83:2016	$1.5 \cdot 10^{-3} \cdot l$, but not $< 0.5 \mu\text{m}$	Measuring principle: incremental
	Piston movement measuring for Material Testing Machines according to DIN 51220		0 mm to 1500 mm	$1.5 \cdot 10^{-3} \cdot l$, but not $< 2 \mu\text{m}$
Optical indentation measuring devices of Hardness Testers	0 mm to 6 mm	DIN EN ISO 6506-2:2019 DIN EN ISO 6507-2:2018	$1.5 \cdot 10^{-3} \cdot l$, but not $< 0.5 \mu\text{m}$	Measuring principle: Object micrometer in incident light
Mechanical work (MTM) Pendulum impact testing machines	0.5 J to 750 J	DIN EN ISO 148-2:2017 DIN 51222:2017 ASTM E 23:2018 DIN EN ISO 13802:2016	force: 0.12 % pendulum length: 0.17 mm angle: 0.05° time: 0.1 s	the measuring uncertainty will be calculated separately for: 1. Position of the oscillation center 2. potential energy 3. deviation of the indicated energy
Velocity (MTM) traverse speed	0 mm/min to 500 mm/min	DIN EN ISO 6892-1:2020 ASTM E2658:2015 ASTM E2309:2020	1.5 %	Measuring principle: Start/Stop-method
	0 mm/min to 500 mm/min		0.3 %	Measuring principle: continuous

Abbreviations used:

ASTM	ASTM American Society for Testing and Materials
CMC	Calibration and measurement capabilities
DIN	Deutsches Institut für Normung e.V. – German institute for standardization

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