

Deutsche Akkreditierungsstelle

Annex to the Accreditation Certificate D-PL-18993-01-01 according to DIN EN ISO/IEC 17025:2018

Valid from: 28.04.2026

Date of issue: 07.05.2026

This annex is part of the Accreditation Certificate D-PL-18993-01-00.

Holder of the Accreditation Certificate:

**Zentrallabor Siegerland Braun & Co.
Gewerbestraße 2, 57258 Freudenberg**

with the location

**Zentrallabor Siegerland Braun & Co.
Gewerbestraße 2, 57258 Freudenberg**

The testing laboratory meets the requirements of DIN EN ISO/IEC 17025:2018 to carry out the conformity assessment activities listed in this annex. The testing 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 testing laboratories and they conform to the principles of DIN EN ISO 9001.

*This annex to the certificate was issued by the Deutsche Akkreditierungsstelle GmbH (DAkkS) and is digitally sealed.
This annex to the certificate 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 valid and surveyed accreditation can be found in the directory of accredited bodies maintained by Deutsche Akkreditierungsstelle GmbH (www.dakks.de).*

Abbreviations used: see last page

page 1 of 8

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Annex to the Accreditation Certificate D-PL-18993-01-01

Tests in the fields:

mechanical-technological and metallographic tests; corrosion investigations as well as analyses and spark emission spectrometry of steel and iron materials and non-ferrous metal materials; determination of elements by combustion analysis

Flexible Scope of Accreditation:

The testing laboratory is permitted to use standardised or equivalent test methods listed here with different issue dates without being required to prior inform and obtain approval from DAkkS (flexibilization according to category A).

The testing laboratory has an up-to-date list of all test methods within the flexible scope of accreditation.

The list is publicly available on the website of the testing laboratory.

Valid from: 28.04.2026

Date of issue: 07.05.2026

page 2 of 8

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Annex to the Accreditation Certificate D-PL-18993-01-01

1 Mechanical-technological testing

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| DIN EN ISO 148-1 2017-05 | Metallic materials – Charpy pendulum impact test – Part 1: Test method |
| DIN EN ISO 148-1 Supplement 1 2014-02 | Metallic materials – Charpy pendulum impact test – Part 1: Test method; Supplement 1: Special test pieces |
| DIN EN ISO 9016 2022-07 | Destructive tests on welds in metallic materials – Impact tests – Test specimen location, notch orientation and examination |
| ASTM E23 2025 | Standard Test Methods for Notched Bar Impact Testing of Metallic Materials |
| DIN EN ISO 6892-1 2020-06 | Metallic materials – Tensile testing – Part 1: Method of test at room temperature |
| DIN EN ISO 6892-2 2018-09 | Metallic materials – Tensile testing – Part 2: Method of test at elevated temperature |
| DIN EN ISO 6892-3 2015-07 | Metallic materials – Tensile testing – Part 3: Method of test at low temperature |
| DIN EN ISO 4136 2022-09 | Destructive tests on welds in metallic materials – Transverse tensile test |
| DIN EN ISO 5178 2019-05 | Destructive tests on welds in metallic materials – Longitudinal tensile test on weld metal in fusion welded joints |
| DIN EN 1561 2024-03 | Founding – Grey cast irons |
| DIN EN 1562 2019-06 | Founding – Malleable cast irons |
| DIN EN 1563 2019-04 | Founding – Spheroidal graphite cast irons |
| ASTM A370a 2024 | Standard Test Methods and Definitions for Mechanical Testing of Steel Products |
| ASTM E8/E8M 2025 | Standard Test Methods for Tension Testing of Metallic Materials |

Valid from: 28.04.2026

Date of issue: 07.05.2026

Annex to the Accreditation Certificate D-PL-18993-01-01

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| ASTM E21 2020 | Standard Test Methods for Elevated Temperature Tension Tests of Metallic Materials |
| ASME IX QB 150 2023 | Brazing: Tension Tests |
| ASME IX QW 150 2023 | Welding: Tension Tests |
| DIN EN 10164 2018-12 | Steel products with improved deformation properties perpendicular to the surface of the product |
| ASME II SA 770/SA 770M 2023 | Standard Specification for Through-Thickness Tension Testing of Steel Plates for Special Applications |
| DIN EN ISO 7438 2021-03 | Metallic materials – Bend test |
| DIN EN ISO 5173 2023-05 | Destructive tests on welds in metallic materials – Bend tests |
| SEP 1390 1996-07 | Weld bead bend test |
| DIN EN ISO 9017 2018-04 | Destructive tests on welds in metallic materials – Fracture test |
| DIN 50106 2023-02 | Testing of metallic materials – Compression test at room temperature |
| DIN EN ISO 8492 2014-03 | Metallic materials – Tube – Flattening test |
| DIN EN ISO 8493 2004-10 | Metallic materials – Tube – Drift-expanding test |
| DIN EN ISO 8495 2014-03 | Metallic materials – Tube – Ring-expanding test |
| DIN EN ISO 8496 2014-03 | Metallic materials – Tube – Ring tensile test |
| DIN 50162 1978-09 | Testing of clad steels; determination of shear strength between cladding metal and parent metal in shear test |

Valid from: 28.04.2026

Date of issue: 07.05.2026

Annex to the Accreditation Certificate D-PL-18993-01-01

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| ASME II SA 263 – 265 2023 | Standard Specification for Stainless Chromium-, Chromium-Nickel-, and Nickel-Base Alloy Steel-Clad Plate |
| ASTM A 923 2025 | Standard Test Methods for Detecting Detrimental Intermetallic Phase in Duplex Austenitic/Ferritic Stainless Steels |

2 Hardness testing

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| DIN EN ISO 6506-1 2015-02 | Metallic materials – Brinell hardness test – Part 1: Test method |
| DIN EN ISO 6507-1 2024-01 | Metallic materials – Vickers hardness test – Part 1: Test method |
| DIN EN ISO 6508-1 2024-04 | Metallic materials – Rockwell hardness test – Part 1: Test method |
| ASTM E10 2023 | Standard Test Method for Brinell Hardness of Metallic Materials |
| ASTM E92 2023 | Standard Test Methods for Vickers Hardness and Knoop Hardness of Metallic Materials |
| DIN EN ISO 9015-1 2011-05 | Destructive tests on welds in metallic materials – Hardness testing – Part 1: Hardness test on arc welded joints |
| DIN EN ISO 9015-2 2016-10 | Destructive tests on welds in metallic materials – Hardness testing – Part 2: Microhardness testing of welded joints |
| DIN EN ISO 18203 2022-07 | Steel – Determination of the thickness of surface-hardened layers |

Valid from: 28.04.2026

Date of issue: 07.05.2026

page 5 of 8

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

Annex to the Accreditation Certificate D-PL-18993-01-01

3 Metallographical testing

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| DIN EN ISO 643 2024-12 | Steels – Micrographic determination of the apparent grain size |
| ASTM E112 2025 | Standard Test Methods for Determining Average Grain Size |
| DIN 50602 1985-09 | Metallographic examination; microscopic examination of special steels using standard diagrams to assess the content of non-metallic inclusions |
| ASTM E562 2019 | Standard Test Method for Determining Volume Fraction by Systematic Manual Point Count |
| DIN EN ISO 17639 2022-05 | Destructive tests on welds in metallic materials – Macroscopic and microscopic examination of welds |
| DIN EN ISO 1463 2021-08 | Metallic and oxide coatings – Measurement of coating thickness - Microscopical method |
| ISO 4968 2022-03 | Steel – Macrographic examination by sulphur print (Baumann method) |
| ASTM A923 2025 | Standard Test Methods for Detecting Detrimental Intermetallic Phase in Duplex Austenitic/Ferritic Stainless Steels |

4 Corrosion testing

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| DIN EN ISO 3651-1 1998-08 | Determination of resistance to intergranular corrosion of stainless steels – Part 1: Austenitic and ferritic-austenitic (duplex) stainless steels; Corrosion test in nitric acid medium by measurement of loss in mass (Huey test) |
| DIN EN ISO 3651-2 1998-08 | Determination of resistance to intergranular corrosion of stainless steels – Part 2: Ferritic, austenitic and ferritic-austenitic (duplex) stainless steels; Corrosion test in media containing sulfuric acid |
| ASTM A262 2015 (reapproved 2021) | Standard Practices for Detecting Susceptibility to Intergranular Attack in Austenitic Stainless Steels |

Valid from: 28.04.2026

Date of issue: 07.05.2026

Annex to the Accreditation Certificate D-PL-18993-01-01

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| ASTM A 923 2025 | Standard Test Methods for Detecting Detrimental Intermetallic Phase in Duplex Austenitic/Ferritic Stainless Steels |
| ASTM G 28 2024 | Standard Test Methods for Detecting Susceptibility to Intergranular Corrosion in Wrought, Nickel-Rich, Chromium-Bearing Alloys |
| ASTM G 48 2025 | Standard Test Methods for Pitting and Crevice Corrosion Resistance of Stainless Steels and Related Alloys by Use of Ferric Chloride Solution |

5 Spark emission spectrometry of steel- and ferrous materials as well as non-ferrous metal materials

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| ASTM E415 2021 | Standard Test Method for Analysis of Carbon and Low-Alloy Steel by Spark Atomic Emission Spectrometry |
| ASTM E1086 2022 | Standard Test Method for Analysis of Austenitic Stainless Steel by Spark Atomic Emission Spectrometry |
| ASTM E1999 2023 | Standard Test Method for Analysis of Cast Iron by Spark Atomic Emission Spectrometry |
| ASTM E2209 2022 | Standard Test Method for Analysis of High Manganese Steel by Spark Atomic Emission Spectrometry |
| ASTM E3047 2022 | Standard Test Method for Analysis of Nickel Alloys by Spark Atomic Emission Spectrometry |
| DIN EN 14726 2019-06 | Aluminium and aluminium alloys – Determination of the chemical composition of aluminium and aluminium alloys by spark optical emission spectrometry |
| ASTM E1251 2025 | Standard Test Method for Analysis of Aluminum and Aluminum Alloys by Spark Atomic Emission Spectrometry |
| DIN EN 15079 2015-07 | Copper and copper alloys – Analysis by spark optical emission spectrometry (S-OES) |
| ASTM E2994 2021 | Standard Test Method for Analysis of Titanium and Titanium Alloys by Spark Atomic Emission Spectrometry and Glow Discharge Atomic Emission Spectrometry (Performance-Based Method) |

Valid from: 28.04.2026

Date of issue: 07.05.2026

page 7 of 8

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Annex to the Accreditation Certificate D-PL-18993-01-01

6 Determination of elements by combustion analysis

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| DIN EN ISO 15350 2010-08 | Steel and iron – Determination of total carbon and sulfur content – Infrared absorption method after combustion in an induction furnace (routine method) |
| DIN EN ISO 15351 2010-08 | Steel and iron – Determination of nitrogen content – Thermal conductimetric method after fusion in a current of inert gas (routine method) |
| DIN EN 10276-2 2003-10 | Chemical analysis of ferrous materials – Determination of oxygen content in steel and iron – Part 2: Infrared method after fusion under inert gas |
| ASTM E1019 2024 | Standard Test Methods for Determination of Carbon, Sulfur, Nitrogen, and Oxygen in Steel, Iron, Nickel, and Cobalt Alloys by Various Combustion and Inert Gas Fusion Techniques |

The following test methods are outside of the flexible accreditation scope:

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| ZLS-HV-OES 2023-09 | Determination of the chemical content in metallic materials using optical emission spectrometry |
| ZLS-HV-V 2023-09 | Determination of carbon, sulphur, nitrogen and oxygen in metallic materials using thermal conductivity measurement and infrared absorption |

Abbreviations used:

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| ASME | American Society of Mechanical Engineers |
| ASTM | American Society for Testing and Materials |
| DIN | German institute for standardization |
| EN | European Standard |
| IEC | International Electrotechnical Commission |
| ISO | International Organization for Standardization |
| SEP | Steel iron test sheet |
| ZLS-HV | In-house methods of Zentrallabor Siegerland Braun & Co |

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