

Deutsche Akkreditierungsstelle GmbH

Annex to the Accreditation Certificate D-PL-11304-01-00 according to DIN EN ISO/IEC 17025:2018

Valid from: 16.12.2019

Date of issue: 16.12.2019

Holder of certificate:

**SLM Schweißtechnische Lehranstalt Magdeburg gGmbH
Werkstoffprüflabor
An der Sülze 7, 39179 Barleben**

Tests in the fields:

Mechanical tests, hardness testing as well as optical emission spectroscopy and metallographic analysis at metallic materials and welded joints

The testing laboratory is permitted, without being required to inform and obtain prior approval from DAkkS, to use standards or equivalent testing methods listed here with different issue dates. The testing laboratory maintains a current list of all testing methods within the flexible scope of accreditation.

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

Abbreviations used: see last page

*The certificate together with its annex reflects the status at the time of the date of issue. The current status of the scope of accreditation can be found in the database of accredited bodies of Deutsche Akkreditierungsstelle GmbH.
<https://www.dakks.de/en/content/accredited-bodies-dakks>*

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1 Mechanical tests

DIN EN ISO 6892-1 2017-02	Metallic materials - Tensile testing - Part 1: Method of test at room temperature (here: <i>method A and B</i>)
DIN EN ISO 6892-2 2018-09	Metallic materials - Tensile testing - Part 2: Method of test at elevated temperature (here: <i>method A and B</i>)
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 ISO 4136 2013-02	Destructive tests on welds in metallic materials - Transverse tensile test
DIN EN ISO 8496 2014-03	Metallic materials - Tube - Ring tensile test
DIN EN ISO 8492 2014-03	Metallic materials - Tube - Flattening test
DIN EN ISO 8491 2004-10	Metallic materials - Tube (in full section) - Bend test
DIN EN 10164 2018-12	Steel products with improved deformation properties perpendicular to the surface of the product - Technical delivery conditions
DIN EN ISO 5173 2012-02	Destructive tests on welds in metallic materials - Bend tests
DIN EN ISO 7438 2016-07	Metallic materials - Bend test
SEP 1390 1996-07	Aufschweißbiegeversuch
DIN EN ISO 9017 2018-04	Destructive tests on welds in metallic materials - Fracture test
DIN 50106 2016-11	Testing of metallic materials - Compression test at room temperature

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DIN EN ISO 9016
2013-02 Destructive tests on welds in metallic materials - Impact tests - Test specimen location, notch orientation and examination

DIN EN ISO 148-1
2017-05 Metallic materials - Charpy pendulum impact test - Part 1: Test method

2 Hardness testing

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 6506-1
2015-02 Metallic materials - Brinell hardness test - Part 1: Test method

DIN EN ISO 6507-1
2018-07 Metallic materials - Vickers hardness test - Part 1: Test method

DIN EN ISO 6508-1
2016-12 Metallic materials - Rockwell hardness test - Part 1: Test method (here: *scale C*)

DIN EN ISO 16859-1
2016-02 Metallic materials - Leeb hardness test - Part 1: Test method (here: *scale D*)

3 Metallographic analysis

DIN EN ISO 2639
2003-04 Steels - Determination and verification of the depth of carburized and hardened cases

DIN EN 10328
2005-04 Iron and steel - Determination of the conventional depth of hardening after surface heating

DIN 50190-3
1979-03 Hardness depth of heat-treated parts - determination of the effective depth of hardening after nitriding

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DIN EN 12797 2000-12	Brazing - Destructive tests of brazed joints <i>(here: only Chapter 6 metallographic analysis without 6.4c)</i>
DIN EN ISO 643 2013-05	Steels - Micrographic determination of the apparent grain size
DIN EN ISO 945-1 2019-10	Microstructure of cast irons - Part 1: Graphite classification by visual analysis
DIN EN 10247 2017-09	Micrographic examination of the non-metallic inclusion content of steels using standard pictures
ISO 4967 2013-07	Steel - Determination of content of non-metallic inclusions - Micrographic method using standard diagrams
DIN EN ISO 17639 2013-12	Destructive tests on welds in metallic materials - Macroscopic and microscopic examination of welds

4 Optical emission spectroscopy

VA 01 2014-08	optical emission spectroscopy (oes) Analysis of 27 elements in steel and iron materials plus non-ferrous Materials (aluminium and copper alloys)
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Abbreviations used:

DIN	German Institute for Standardization
EN	European Standard
ISO	International Standard Organisation
SEP	Stahl-Eisen-Prüfblätter vom Verein Deutscher Eisenhüttenleute
VA	In house method of the SLM Schweißtechnische Lehranstalt Magdeburg gGmbH

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