

## Deutsche Akkreditierungsstelle GmbH

### Annex to the Accreditation Certificate D-PL-17479-01-00 according to DIN EN ISO/IEC 17025:2018

**Valid from: 06.12.2018**

Date of issue: **06.12.2018**

Holder of certificate:

**SPC Werkstofflabor GmbH  
In der Waage 10, 73463 Aalen-Westhausen**

Tests in the fields:

**mechanic-technological tests (pressure test, tensile test, bend test, impact test, hardness test);  
metallographic tests on metallic materials and their alloys, castings and forgings, sheets, tubes,  
semi-finished products, formed products, welded joints and finished parts in the metal-producing  
and -processing industry; optical spark emission (OES) of metallic materials (casting, unalloyed  
steels, low alloyed steels and high alloyed steels)**

**Within the scope of accreditation marked with \*, 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 Physical and mechanic-technological tests \***

**1.1 Tensile test**

DIN EN 876 1995-10	Destructive tests on welds in metallic materials - Longitudinal tensile test on weld metal in fusion welded joints <i>(withdrawn standard)</i>
DIN EN 895 1999-05	Destructive tests on welds in metallic materials - Transverse tensile test <i>(withdrawn standard)</i>
DIN EN ISO 4136 2013-02	Destructive tests on welds in metallic materials - Transverse tensile test
DIN EN ISO 5178 2011-05	Destructive tests on welds in metallic materials - Longitudinal tensile test on weld metal in fusion welded joints
DIN EN ISO 6892-1 2017-02	Metallic materials - Tensile testing - Part 1: Method of test at room temperature <i>(here: Method B)</i>
DIN EN ISO 6892-2 2018-09	Metallic materials - Tensile testing - Part 2: Method of test at elevated temperature
DIN EN 10002-1 2001-12	Metallic materials - Tensile testing - Part 1: Method of testing at ambient temperature <i>(withdrawn standard)</i>

**1.2 Impact test**

DIN EN ISO 148-1 2017-05	Metallic materials - Charpy pendulum impact test - Part 1: Test method
DIN EN 875 1995-10	Destructive tests on welds in metallic materials - Impact tests - Test specimen location, notch orientation and examination <i>(withdrawn standard)</i>
DIN EN ISO 9016 2013-02	Destructive tests on welds in metallic materials - Impact tests - Test specimen location, notch orientation and examination

**-Translation-**

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**Annex to the accreditation certificate D-PL-17479-01-00**

DIN EN 10045-1  
1991-04 Charpy impact test on metallic materials - Part 1: Test method  
(*withdrawn standard*)

DIN 50115  
1991-04 Notched bar impact testing of metallic materials using test pieces  
other than ISO test pieces  
(*withdrawn standard*)

**1.3 Bend test**

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

**1.4 Hardness test**

DIN EN 1043-1  
1996-02 Destructive test on welds in metallic materials - Hardness testing -  
Part 1: Hardness test on arc welded joints  
(*withdrawn standard*)

DIN EN ISO 6506-1  
2015-02 Metallic materials - Brinell hardness test - Part 1: Test method  
(here: *Method HBW 2,5 / 62,5; 2,5 / 187,5; 5 / 750; 10 / 3000*)

DIN EN ISO 6507-1  
2018-07 Metallic materials - Vickers hardness test - Part 1: Test method  
(here: *Method HV 0,5 to HV 30*)

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

DIN EN ISO 9015-1  
2011-05 Destructive tests on welds in metallic materials - Hardness testing -  
Part 1: Hardness test on arc welded joints

**2 Metallographic tests \***

DIN EN ISO 643  
2013-05 Steels - Micrographic determination of the apparent grain size

DIN EN ISO 945  
1994-09 Cast iron - Designation of microstructure of graphite  
(*withdrawn standard*)

**-Translation-**

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**Annex to the accreditation certificate D-PL-17479-01-00**

DIN EN ISO 945-1 2018-05	Microstructure of cast irons - Part 1: Graphite classification by visual analysis
DIN EN 1321 1996-12	Destructive tests of welds in metallic materials - Macroscopic and microscopic examination of welds <i>(withdrawn standard)</i>
DIN EN ISO 2639 2003-04	Steels - Determination and verification of the depth of carburized and hardened cases
DIN EN ISO 3887 2018-05	Steels - Determination of the depth of decarburization
ISO 4967 2013-07	Steel - Determination of content of non-metallic inclusions - Micrographic method using standard diagrams
DIN EN 10328 2005-04	Iron and steel - Determination of the conventional depth of hardening after surface heating
DIN EN 10247 2017-09	Micrographic examination of the non-metallic inclusion content of steels using standard pictures
DIN EN ISO 15614-1 2017-12	Specification and qualification of welding procedures for metallic materials - Welding procedure test - Part 1: Arc and gas welding of steels and arc welding of nickel and nickel alloys
DIN EN ISO 17639 2013-12	Destructive tests on welds in metallic materials - Macroscopic and microscopic examination of welds
DIN 50190-2 1979-03	Hardness depth of heat-treated parts - Determination of the effective depth of hardening after flame or induction hardening <i>(withdrawn standard)</i>
DIN 50190-3 1979-03	Hardness depth of heat-treated parts - Determination of the effective depth of hardening after nitriding
DIN 50190-4 1999-04	Hardness depth of heat-treated parts - Part 4: Determination of the fusion hardening depth and the fusion depth
DIN 50600 2017-10	Testing of metallic materials - Metallographic micrographs - Picture scales

**-Translation-**

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DIN 50601 1985-08	Metallographic examination - Determination of the ferritic or austenitic grain size of steel and ferrous materials <i>(withdrawn standard)</i>
DIN 50602 1985-09	Metallographic examination - Microscopic examination of special steels using standard diagrams to assess the content of non-metallic inclusions <i>(withdrawn standard)</i>
ASTM E 112-13 2013	Standard Test Methods for Determining Average Grain Size
ASTM E 45-18 2018	Standard Test Methods for Determining the Inclusion Content of Steel
SEP 1520 1998-09	Microscopic examination of carbide structure in steels by means of diagram series
SEP 1572 1971-08	Microscopic test of free cutting steels for solid nonmetallic inclusions in metal by means of strip mosaics
SEP 1614 1996-09	Microscopic inspection of hot-work tool steels
VDG P441 1962-08	Cast iron - Straightening lines for marking graphite formation <i>(withdrawn standard)</i>

**3 Chemical analysis / Spectral analysis**

SPCAV00022 Rev. 1 2018-08	Chemical analysis by stationary spectrometer SPECTROLAB - Verification of alloy elements and determination of their amount in metallic materials (cast iron, unalloyed steel, low-alloyed steel and high-alloyed steel) - Determination of the elements C, Si, Mn, P, S, Cr, Mo, Ni, Al, Cu, V, Nb, Ti, Co, W, As, Sn, Pb, B, Zr
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**-Translation-**

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**abbreviations used:**

ASTM	American Society for Testing and Materials
DIN	German Institute for Standardisation
EN	European Standard
ISO	International Organisation for Standardisation
SEP	Steel Iron Test Sheet from the Association of German Ironworkers
SPCAV	Analysis specification of the SPC Werkstofflabor GmbH
V DG	Association of the German Foundry Profession

**-Translation-**

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