

Deutsche Akkreditierungsstelle GmbH

Annex to the Accreditation Certificate D-PL-11347-01-00 according to DIN EN ISO/IEC 17025:2018

Valid from: 03.04.2020

Date of issue: 03.04.2020

Holder of certificate:

Techno Labor GmbH
Gohrweide 25, 46238 Bottrop

Tests in the fields:

mechanic-technological, metallographic and non-destructive testing (magnetic particle testing, penetrant testing, Radiographic testing, Ultrasonic testing and visual testing) on metallic materials and welding constructions within installation and plant engineering; corrosion testing; optical emission spectrometry (OES) on iron alloys, nickel alloy and aluminium alloy

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 procedures within the flexible scope of accreditation

1 Magnetic particle testing *

DIN EN ISO 9934-1 2015-12	Non-destructive testing - Magnetic particle testing – Part 1: General principles
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2 Penetrant testing *

DIN EN ISO 3452-1 2014-09	Non-destructive testing - Penetrant testing - Part 1: General principles
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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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3 Radiographic testing *

DIN EN ISO 5579
2014-04 Non-destructive testing - Radiographic testing of metallic materials using film and X- or gamma rays - Basic rules

4 Ultrasonic testing *

DIN EN ISO 16810
2014-07 Non-destructive testing - Ultrasonic testing - General principles

DIN EN ISO 17640
2019-02 Non-destructive testing of welds - Ultrasonic testing - Techniques, testing levels, and assessment

5 Visual testing *

DIN EN 13018
2016-06 Non-destructive testing - Visual testing - General principles

DIN EN ISO 17637
2017-04 Non-destructive testing of welds - Visual testing of fusion-welded joints

6 Pendulum impact test *

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

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

7 Tensile testing *

DIN EN ISO 4136
2013-02 Destructive tests on welds in metallic materials - Transverse tensile test

DIN EN ISO 6892-1
2017-02 Metallic materials - Tensile testing - Part 1: Method of test at room temperature
(here: method *B*)

DIN EN ISO 6892-2
2011-05 Metallic materials - Tensile testing - Part 2: Method of test at elevated temperature
(here: method *B*)

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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 15630-1 2019-05	Steel for the reinforcement and prestressing of concrete - Test methods - Part 1: Reinforcing bars, wire rod and wire (here: <i>only clause 5, tensile test</i>)
DIN EN ISO 15630-2 2019-05	Steel for the reinforcement and prestressing of concrete - Test methods - Part 2: Welded fabric (here: <i>only clause 5, tensile test</i>)

8 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
DIN EN ISO 15630-1 2019-05	Steel for the reinforcement and prestressing of concrete - Test methods - Part 1: Reinforcing bars, wire rod and wire (here: <i>only clause 6, bend test</i>)
DIN EN ISO 15630-2 2019-05	Steel for the reinforcement and prestressing of concrete - Test methods - Part 2: Welded fabric (here: <i>only clause 6, bend test on bond of welded fabric clause 7, shear test</i>)

9 Hardness test *

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

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

10 Metallographic testing *

DIN EN ISO 17639
2013-12 Destructive tests on welds in metallic materials - Macroscopic and
microscopic examination of welds

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

DIN EN 10247
2017-09 Micrographic examination of the non-metallic inclusion content of
steels using standard pictures

DIN 50602
1985-09 Metallographic examination; microscopic examination of special
steels using standard diagrams to assess the content of non-metallic
inclusions
(withdrawn)

ISO 4967
2013-07 Steel - Determination of content of non-metallic inclusions -
Micrographic method using standard diagrams

ISO 4968
1979-01 Steel - Macrographic examination by sulfur print (Baumann method)

ASTM E 112
2013 Standard Test Methods for Determining Average Grain Size

ASTM E 340
2015 Standard Practice for Macroetching Metals and Alloys

ASTM E 407-07
2015 Standard Practice for Microetching Metals and Alloys

ASTM E 562
2011 Standard Test Method for Determining Volume Fraction by Systematic
Manual Point Count

ASTM E 1245-03
2008
(reapproved 2016) Standard Practice for Determining the Inclusion or Second-Phase
Constituent Content of Metals by Automatic Image Analysis

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11 Corrosion testing *

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
SEP 1877 1994-07	Determination of resistance to intergranular corrosion of high-alloyed, corrosion resistant materials
ASTM A 262 2015	Standard Practices for Detecting Susceptibility to Intergranular Attack in Austenitic Stainless Steels
ASTM A 923 2014	Standard Test Methods for Detecting Detrimental Intermetallic Phase in Duplex Austenitic/Ferritic Stainless Steels
ASTM G28 2002(2015)	Standard Test Methods for Detecting Susceptibility to Intergranular Corrosion in Wrought, Nickel-Rich, Chromium-Bearing Alloys
ASTM G48 2011(2015)	Standard Test Methods for Pitting and Crevice Corrosion Resistance of Stainless Steels and Related Alloys by Use of Ferric Chloride Solution

12 Optical emission spectrometry (OES) on iron alloys, nickel alloys and aluminium alloys

AA 541 OES 2019-11	Metall analysis by optical emission spectrometry Fe-, Ni- and Al-basis
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abbreviations used:

AA	Internal procedure of Techno Labor GmbH
ASTM	American Society for Testing and Materials
DIN	German Institute for Standardization
EN	European Standard
IEC	International Electrotechnical Commission
ISO	International Organisation for Standardization
SEP	Stahl-Eisen-Prüfblätter

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