

Deutsche Akkreditierungsstelle GmbH

Entrusted according to Section 8 subsection 1 AkkStelleG in connection with Section 1 subsection 1 AkkStelleGBV

Signatory to the Multilateral Agreements of
EA, ILAC and IAF for Mutual Recognition

Accreditation



The Deutsche Akkreditierungsstelle GmbH attests that the testing laboratory

LISEGA SE
Gerhard-Liesegang-Straße 1, 27404 Zeven

with the laboratory:

LISEGA SE
Material Testing Laboratory / LIMAlab

is competent under the terms of DIN EN ISO/IEC 17025:2005 to carry out tests in the following fields:

**mechanical-technological tests, hardness tests and optical emission spectrometry (OES)
for the determination of steel and ferrous materials**

The accreditation certificate shall only apply in connection with the notice of accreditation of 13.02.2018 with the accreditation number D-PL-20689-01 and is valid until 12.02.2023. It comprises the cover sheet, the reverse side of the cover sheet and the following annex with a total of 3 pages.

Registration number of the certificate: **D-PL-20689-01-00**

Berlin,
28.02.2018

Dipl.-Ing. (FH) Ralf Egner
Head of Division

Translation issued:
13.02.2018


Head of Division

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

See notes overleaf.

Deutsche Akkreditierungsstelle GmbH

Annex to the Accreditation Certificate D-PL-20689-01-00 according to DIN EN ISO/IEC 17025:2005

Period of validity: 13.02.2018 to 12.02.2023

Date of issue: 28.02.2018

Holder of certificate:

LISEGA SE
Gerhard-Liesegang-Straße 1, 27404 Zeven

with the testing laboratory:

LISEGA SE
Material Testing Laboratory / LIMALab

Tests in the fields:

mechanical-technological tests, hardness tests and optical emission spectrometry (OES) for the determination of steel and ferrous materials

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.

abbreviations used: see last page

DIN EN ISO 6892-1
2017-02

Metallic materials - Tensile testing - Part 1: Method of test at room temperature
(here: *method A and B*)

DIN EN ISO 6892-2
2011-05

Metallic materials - Tensile testing - Part 2: Method of test at elevated temperature
(here: *method A*)

DIN EN 10164
2016-04

Steel products with improved deformation properties perpendicular to the surface of the product - Technical delivery conditions

Annex to the accreditation certificate D-PL-20689-01-00

DIN EN ISO 148-1 2017-05	Metallic materials - Charpy pendulum impact test - Part 1: Test method
DIN EN ISO 6506-1 2015-02	Metallic materials - Brinell hardness test - Part 1: Test method (here: <i>HBW 2,5/187,5</i>)
DIN EN ISO 6507-1 2016-08	Metallic materials - Vickers hardness test - Part 1: Test method (here: <i>HV10</i>)
DIN EN ISO 6508-1 2016-12	Metallic materials - Rockwell hardness test - Part 1: Test method (here: <i>true for scale C</i>)
DIN EN ISO 7438 2016-07	Metallic materials - Bend test
DIN EN ISO 8491 2004-10	Metallic materials - Tube (in full section) - Bend test
DIN EN ISO 8492 2014-03	Metallic materials - Tube - Flattening test
ASTM E 8/E 8Ma 2016	Standard Test Methods for Tension Testing of Metallic Materials
ASTM E 10a 2017	Standard Test Method for Brinell Hardness of Metallic Materials (here: <i>type A</i>)
ASTM E 18 2017	Standard Test Methods for Rockwell Hardness of Metallic Materials (here: <i>scale C</i>)
ASTM E 21 2017	Standard Test Methods for Elevated Temperature Tension Tests of Metallic Materials
ASTM E 23b 2016	Standard Test Methods for Notched Bar Impact Testing of Metallic Materials (here: <i>without Izod</i>)

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ASTM E 92 2017	Standard Test Methods for Vickers Hardness and Knoop Hardness of Metallic Materials (here: <i>Vickers</i>)
ASTM E 290 2014	Standard Test Methods for Bend Testing of Material for Ductility
ASTM A 370a 2017 A2.5.1.1 A2.5.1.6	Standard Test Methods and Definitions for Mechanical Testing of Steel Products Flattening Test Bend Test for Pipe
ASTM A 770/A 770M 2003 (reapproved 2012)	Standard Specification for Through-Thickness Tension Testing of Steel Plates for Special Applications
LWI 009 Rev. B 2017-12	Optical emission spectrometry (OES) for the determination of 18 elements in steel and ferrous materials

abbreviations used:

ASTM	American Society for Testing and Materials
DIN	German Institute for Standard
EN	European standard
ISO	International Organization for Standardization
LWI	In house method of the LISEGA SE