

Deutsche Akkreditierungsstelle GmbH

Annex to the Accreditation Certificate D-PL-18064-01-00 according to DIN EN ISO/IEC 17025:2005

Period of validity: 04.12.2017 to 03.12.2022

Date of issue: 04.12.2017

Holder of certificate:

Buderus Edelstahl GmbH
Mechanisches Prüflabor / Metallographie
Buderusstraße 25, 35576 Wetzlar

Tests in the fields:

mechanical tests and metallographic examinations at metallic materials

Abbreviations used: see last page

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.

1 Mechanical tests

1.1 Tensile testing

DIN EN ISO 6892-1 2017-02	Metallic materials - Tensile testing - Part 1: Method of test at room temperature
DIN EN ISO 6892-2 2011-05	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

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DIN EN 10002-1 2001-12	Metallic materials - Tensile testing - Part 1: Method of testing at ambient temperature <i>(withdrawn standard)</i>
DIN EN 10002-5 1992-02	Tensile testing of metallic materials; method of testing at elevated temperature <i>(withdrawn standard)</i>
ASTM E 8 / E 8Ma 2016	Standard Test Methods for Tension Testing of Metallic Materials
ASTM E 21 2009	Standard Test Methods for Elevated Temperature Tension Tests of Metallic Materials

1.2 Hardness testing

DIN EN ISO 642 2000-01	Steel - Hardenability test by end quenching (Jominy test)
DIN EN ISO 2639 2003-04	Steels - Determination and verification of the depth of carburized and hardened cases
DIN EN ISO 6506-1 2015-02	Metallic materials - Brinell hardness test - Part 1: Test method
DIN EN ISO 6507-1 2006-03	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
ASTM E 10 2017	Standard Test Method for Brinell Hardness for Metallic Materials
ASTM E 18 2017	Standard Test Method for Rockwell Hardness for Metallic Materials
ASTM E 92 2017	Standard Test Method for Vickers Hardness and Knoop Hardness for Metallic Materials <i>(here: Vickers Hardness)</i>

2 Metallographic examinations and miscellaneous tests

2.1 Metallographic examinations

ISO 4967 2013-07	Steel - Determination of content of non-metallic inclusions - Micrographic method using standard diagrams
ISO 5949 1983-12	Tool steels and bearing steels - Micrographic method for assessing the distribution of carbides using reference photomicrographs
DIN EN ISO 643 2013-05	Steel - Micrographic determination of the apparent grain size
DIN EN ISO 3887 2003-10	Steels - Determination of depth of decarburization
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 <i>(withdrawn standard)</i>
ASTM E 45 2013	Standard Test Methods for Determining the Inclusion Content of Steel
ASTM E 112 2013	Standard Test Methods for Determining Average Grain Size
ASTM E 381 2017	Standard Method of Macroetch Testing Steel Bars, Billets, Blooms, and Forgings
ASTM A 892 2009	Standard Guide for Defining and Rating the Microstructure of High Carbon Bearing Steels
ASTM E 1077 2014	Standard Test Methods for Estimating the Depth of Decarburization of Steel Specimens
SEP 1520 1998-09	Microscopic examination of carbide structure in steels by means of diagram series
SEP 1571 2017-08	Evaluation of inclusions in special steels based on their surface areas

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SEP 1572 1971-08	Microscopic test of free cutting steels for solid nonmetallic inclusions in metal by means of strip mosaics
SEP 1584 1996-12	Blue brittleness test for the testing of steels for macroscopic nonmetallic inclusions
SEP 1614 1996-09	Microscopic inspection of hot-work tool steels
SEP 1615 1975-01	Microscopic and macroscopic testing of high-speed steels for their carbide distribution by means of strip mosaics

2.2 Miscellaneous testing

DIN EN 60404-4 2009-08	Magnetic materials - Part 4: Methods of measurement of d.c. magnetic properties of magnetically soft materials
ASTM A 341/A 341M 2016	Standard Test Method for Direct Current Magnetic Properties of Soft Magnetic Materials Using D-C Permeameters and the Point by Point (Ballistic) Test Methods
ASTM A 773/A 773M 2014	Standard Test Method for Direct Current Magnetic Properties of Low Coercivity Magnetic Materials Using Hysteresigraphs

Abbreviations used:

ASTM	American Society for Testing and Materials
DIN	German Institute for Standard
EN	European Standard
ISO	International Organization for Standardization
SEP	Steel and iron test sheet of the Association of German Steel Institute