

## Deutsche Akkreditierungsstelle

### Annex to the Partial Accreditation Certificate D-PL-19262-01-02 according to DIN EN ISO/IEC 17025:2018

**Valid from:** 01.03.2024

**Date of issue:** 22.04.2024

This annex is a part of the accreditation certificate D-PL-19262-01-00.

Holder of partial accreditation certificate:

**ZEROS GmbH**  
**Alexander-Meißner-Straße 34, 12526 Berlin**

with the location

**ZEROS GmbH**  
**Alexander-Meißner-Straße 34, 12526 Berlin**

The testing laboratory meets the requirements of DIN EN ISO/IEC 17025:2018 to carry out the conformity assessment activities listed in this annex. The testing laboratory meets additional legal and normative requirements, if applicable, including those in relevant sectoral schemes, provided that these are explicitly confirmed below.

The management system requirements of DIN EN ISO/IEC 17025 are written in the language relevant to the operations of testing laboratories and they conform to the principles of DIN EN ISO 9001.

**Hardness test on steel and iron materials, optical spark emission spectrometry (OES) on steel, iron and aluminium materials, mechanical-technological and metallographic tests on metallic materials in metal producing and metal processing industry as well as in plant engineering and at plant**

*This certificate annex is only valid together with the written accreditation certificate and reflects the status as indicated by the date of issue. The current status of any given scope of accreditation can be found in the directory of accredited bodies maintained by Deutsche Akkreditierungsstelle GmbH at <https://www.dakks.de>.*

Abbreviations used: see last page

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

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**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 Mechanical-technological test \*\*\***

**1.1 Hardness test**

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

DIN EN ISO 9015-2  
2016-10                      Destructive tests on welds in metallic materials - Hardness testing -  
Part 2: Microhardness testing of welded joints

**1.2 Mechanical test**

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

DIN EN ISO 6892-1  
2020-06                      Metallic materials - Tensile testing - Part 1: Method of test at room  
temperature

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 9017  
2018-04                      Destructive tests on welds in metallic materials - Fracture test

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**2 Metallography**

**2.1 Metallography according standards \*\*\***

DIN EN ISO 643 2020-06	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 ISO 17639 2022-05	Destructive tests on welds in metallic materials - Macroscopic and microscopic examination of welds

**2.2 Metallography according in house-methods**

AA T-31 Rev. 0 2022-11	Assessment of structures on metallic materials
AA T-32 Rev. 0 2022-11	Layer thickness measurement based on DIN EN ISO 1463

**3 Optical emission spectrometry (OES)**

AA T-13 Rev. 05	Optical emission spectrometry (OES) of 16 elements in steel and iron materials and 9 elements in aluminium materials
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**Abbreviations used:**

AA	Work instructions of the ZEROS GmbH
DIN	German Institute for Standardization
EN	European standard
IEC	International Electrotechnical Commission
ISO	International Organization for Standardization

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