

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





The Deutsche Akkreditierungsstelle GmbH attests that the testing laboratory

Horn & Co. Analytics GmbH

at the locations

Auestraße 4, 58452 Witten Obere Kaiserstraße, 57078 Siegen

is competent under the terms of DIN EN ISO/IEC 17025:2018 to carry out tests in the following fields:

elemental analysis by optical emission spectrometry (OES) and X-ray fluorescence spectrometry and determination of the total gamma activity of steel and ferrous materials and non-ferrous materials

The accreditation certificate shall only apply in connection with the notice of accreditation of June 7, 2022 with the accreditation number D-PL-14055-01. 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-14055-01-03**

Berlin, June 7, 2022 Dipl.-Biol. Uwe Zimmerman Head of Department Translation issued: November 9, 2022

Department

Head

The certificate together with the annex 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/en/accredited-bodies-search.html.

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

Deutsche Akkreditierungsstelle GmbH

Office Berlin Spittelmarkt 10 10117 Berlin Office Frankfurt am Main Europa-Allee 52 60327 Frankfurt am Main Office Braunschweig Bundesallee 100 38116 Braunschweig

The publication of extracts of the accreditation certificate is subject to the prior written approval by Deutsche Akkreditierungsstelle GmbH (DAkkS). Exempted is the unchanged form of separate disseminations of the cover sheet by the conformity assessment body mentioned overleaf.

No impression shall be made that the accreditation also extends to fields beyond the scope of accreditation attested by DAkkS.

The accreditation was granted pursuant to the Act on the Accreditation Body (AkkStelleG) and the Regulation (EC) No 765/2008 of the European Parliament and of the Council setting out the requirements for accreditation and market surveillance relating to the marketing of products. DAkkS is a signatory to the Multilateral Agreements for Mutual Recognition of the European co-operation for Accreditation (EA), International Accreditation Forum (IAF) and International Laboratory Accreditation Co-operation (ILAC). The signatories to these agreements recognise each other's accreditations.

The up-to-date state of membership can be retrieved from the following websites:

EA: www.european-accreditation.org

challee d**AF: www.iaf.nu**

de las menterals/



Deutsche Akkreditierungsstelle GmbH

Annex to the Accreditation Certificate D-PL-14055-01-03 according to DIN EN ISO/IEC 17025:2018

Valid from:June 7, 2022Date of issue:June 7, 2022

Holder of certificate:

Horn & Co. Analytics GmbH

at the locations:

Auestraße 4, 58452 Witten Obere Kaiserstraße, 57078 Siegen

Tests in the fields:

elemental analysis by optical emission spectrometry (OES) and X-ray fluorescence spectrometry and determination of the total gamma activity of steel and ferrous materials and non-ferrous materials

Within sections 2 and 3, the testing laboratory is permitted to apply the listed standardised or equivalent test methods with different versions without obtaining prior notification and consent from DAkkS.

The testing laboratory has an up-to-date list of all test methods within the flexible scope of accreditation.

The management system requirements of DIN EN ISO/IEC 17025 are written in the language relevant to the operations of testing laboratories. Laboratories that conform to the requirements of this standard, operate generally in accordance with the principles of DIN EN ISO 9001.

The certificate together with the annex 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/en/content/accredited-bodies-dakks.

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.



Annex to the accreditation certificate D-PL-14055-01-03

The test methods are marked with the following symbols for the locations at which they are carried out:

> S = Siegen W = Witten

1 Determination of elements in steel materials and in nickel and cobalt-based materials by optical emission spectrometry

AA-HuK-171_Rev. 0 2021-02

Optical spark emission spectrometry (OES) of steel materials and S, W nickel and cobalt-based materials

Determination of sulphur, carbon, nitrogen, hydrogen and oxygen in steel materials using 2 elemental analysers

Handbuch für das Eisenhüttenlaboratorium, Volume 2 Part 2, 2. Ed. 1998	Determination of total carbon and sulphur content of steel – Method using infrared atomic absorption spectroscopy	S, W
Handbuch für das Eisenhüttenlaboratorium, Volume 2 Part 2, 2. Ed. 1998	Determination of total nitrogen content of steel (carrier gas method)	S, W
Handbuch für das Eisenhüttenlaboratorium, Volume 2 Part 2, 2. Ed. 1998	Determination of the oxygen content of steel (carrier gas method, measurement of infrared absorption)	S, W
Handbuch für das Eisenhüttenlaboratorium, Volume 2 Part 2. 2. Ed. 1998	Determination of hydrogen in steel by hot extraction (carrier gas method, thermal conductivity)	S, W

X-ray fluorescence analysis of steel materials 3

Handbuch für das Eisenhüttenlaboratorium, Volume 1, (2) 2016 edition	X-ray fluorescence analysis of steel samples (wavelength-dispersive X-ray fluorescence spectrometry)	S, W
Handbuch für das Eisenhüttenlaboratorium, Volume 2 Part 2, 2. Ed. 1998	X-ray fluorescence analysis of steel samples (wavelength dispersive X-ray fluorescence spectrometry)	S, W
Handbuch für das Eisenhüttenlaboratorium, Volume 3 / 4, 1997 edition	X-ray fluorescence analysis of steel samples (wavelength dispersive X-ray fluorescence spectrometry)	S, W
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Annex to the accreditation certificate D-PL-14055-01-03

Handbuch für das	X-ray fluorescence analysis of steel samples (wavelength	S, W
Eisen hütten laboratorium,	dispersive X-ray fluorescence spectrometry)	
Volume 5, 1986 edition		

4 Determination of total gamma activity in steel materials

AA-HuK-177_Rev. 0 2021-02	Analysis of steel samples for radioactive components in Siegen (determination of total gamma activity)	S
AA-HuK-178_Rev. 0 2021-02	Analysis of steel samples for radioactive components in Witten (determination of total gamma activity)	W

Abbreviations used:

AA-HuK-XXX	In-house method of Horn & Co. Analytics GmbH
DIN	Deutsches Institut für Normung e. V. (German Institute for Standardization)
EN	European standard
ISO	International Organization für Standardization