

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

HuK Umweltlabor GmbH
Buderusstraße 25, 35576 Wetzlar

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

selected methods for analysis of steels and slags

The accreditation certificate shall only apply in connection with the notice of accreditation of 31.03.2017 with the accreditation number D-PL-14055-01 and is valid until 30.03.2022. 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-14055-01-02**

Berlin,
10.07.2017

Andrea Valbuena
Head of Division

Translation issued:
10.07.2017



Head of Division

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) of 31 July 2009 (Federal Law Gazette I p. 2625) and the Regulation (EC) No 765/2008 of the European Parliament and of the Council of 9 July 2008 setting out the requirements for accreditation and market surveillance relating to the marketing of products (Official Journal of the European Union L 218 of 9 July 2008, p. 30). 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 Cooperation (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

ILAC: www.ilac.org

IAF: www.iaf.nu

Deutsche Akkreditierungsstelle GmbH

Annex to the Accreditation Certificate D-PL-14055-01-02 according to DIN EN ISO/IEC 17025:2005

Period of validity: 31.03.2017 to 30.03.2022

Date of issue: 10.07.2017

Holder of certificate:

HuK Umweltlabor GmbH
Buderusstraße 25, 35576 Wetzlar

Tests in the fields:

selected methods for analysis of steels and slags

Abbreviations used: see last page

The testing laboratory is permitted to apply the listed standardised or equivalent test methods with different versions of the standards 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.

1 Selected methods for analysis of steels

DIN EN ISO 15350 2010-08	Steel and iron - Determination of total carbon and sulphur content - Infrared absorption method after combustion in an induction furnace (routine method)
DIN EN ISO 15351 2010-08	Steel and iron - Determination of nitrogen content - Thermal conductimetric method after fusion in a current of inert gas (routine method)
DIN EN 10276-1 2000-08	Chemical analysis of ferrous materials - Determination of oxygen content in steel and iron - Part 1: Sampling and preparation of steel samples for oxygen determination

Annex to the accreditation certificate D-PL-14055-01-02

DIN EN 10276-2 2003-10	Chemical analysis of ferrous materials - Determination of oxygen in steel and iron - Part 1: Sampling and preparation of steel samples for oxygen determination
DIN 51418-2 2015-03	X-ray spectrometry - X-ray emission and X-ray fluorescence analysis (XRF) - Part 2: Definitions and basic principles for measurements, calibration and evaluation of results
ASTM E 415 2014	Standard test method for analysis of carbon and low-alloy steel by spark atomic emission spectrometry
ASTM E 1086 2014	Standard test method for analysis of austenitic stainless steel by spark atomic emission spectrometry
AA-HuK-047 2016-09	Determination of Al, As, B, Bi, C, Ca, Co, Cr, Cu, Fe, Mg, Mn, Mo, N, Nb, Ni, P, Pb, S, Sb, Si, Sn, Ta, Ti, V, W, Zn and Zr in low-alloy chromium, chromium/nickel, manganese and tool steels by spark emission spectroscopy
Handbuch für das Eisen- hüttenlaboratorium, Volume 2, Part 2, 2nd Ed. 1998, p. 116 1985-01	Determination of total carbon and sulphur content of steel - Method using infrared atomic absorption spectroscopy
Handbuch für das Eisen- hüttenlaboratorium, Volume 2, Part 2, 2nd Ed. 1998, p. 235 1989-08	Determination of hydrogen in steel by hot extraction - Carrier gas method, thermal conductivity
Handbuch für das Eisen- hüttenlaboratorium, Volume 2, Part 2, 2nd Ed. 1998, p. 192 1986-11	Analysis of ferrochromium after sample preparation by metal remelting - X-ray fluorescence spectrometric determination of the elements silicon, manganese, phosphorus, chromium, nickel, vanadium and cobalt in ferrochromium

2 Selected methods for analysis of slags

DIN 51001 Supplementary sheet 1 2010-05	Testing of oxidic raw materials and basic materials - General bases of work for X-Ray fluorescence method (XRF) - General survey on disintegration methods referred to groups of materials for the determination of test specimens for XRF
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Abbreviations used:

AA-HuK-xxx	In-house method of HuK Umweltlabor GmbH
ASTM	ASTM International, international standardisation organisation
DIN	Deutsches Institut für Normung e. V. (German Institute for Standardisation)
EN	European standard
HfdE	Handbuch für das Eisenhüttenlaboratorium (Handbook for the Iron and Steel Laboratory)
IEC	International Electrotechnical Commission
ISO	International Organisation for Standardisation