

Accreditation



The Deutsche Akkreditierungsstelle attests with this **Accreditation Certificate** that the testing laboratory

CRB Analyse Service GmbH
Bahnhofstraße 14, 37181 Hardegsen

meets the requirements of DIN EN ISO/IEC 17025:2018 for the conformity assessment activities specified in the following partial accreditation certificates. This includes additional existing legal and normative requirements for the testing laboratory, including those in relevant sectoral schemes, provided that these are explicitly confirmed in the annexes to the partial accreditation certificates listed below.

D-PL-19161-01-01

D-PL-19161-01-02

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.

This accreditation was issued in accordance with Art. 5 Para. 1 Sentence 2 of Regulation (EC) 765/2008, after an accreditation procedure was carried out in compliance with the minimum requirements of DIN EN ISO/IEC 17011 and on the basis of a review and decision of the appointed accreditation committees.

This accreditation certificate consists of this cover sheet, the reverse side of the cover sheet and the following annex. It only applies in connection with the partial accreditation certificates listed above and the notices referred to there.

Registration number of the certificate: **D-PL-19161-01-00**

Berlin, 11.01.2024

Dr. Olga Lettau
Head of Technical Unit

Translation issued:
26.02.2024



Dr. Olga Lettau
Head of Technical Unit

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 (www.dakks.de).

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 Deutsche Akkreditierungsstelle GmbH (DAkKS) is the entrusted national accreditation body of the Federal Republic of Germany according to § 8 section 1 AkkStelleG in conjunction with § 1 section 1 AkkStelleGBV. DAkKS is designated as the national accreditation authority by Germany according to Art. 4 Para. 4 of Regulation (EC) 765/2008 and clause 4.7 of DIN EN ISO/IEC 17000.

Pursuant to Art. 11 section 2 of Regulation (EC) 765/2008, the accreditation certificate shall be recognised as equivalent by the national authorities within the scope of this Regulation as well as by the WTO member states that have committed themselves in bilateral or multilateral mutual agreements to recognise the certificates of accreditation bodies that are members of ILAC or IAF as equivalent.

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 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

Annex to the Accreditation Certificate D-PL-19161-01-00 according to DIN EN ISO/IEC 17025:2018

Valid from: 11.01.2024

Date of issue: 11.01.2024

Holder of accreditation certificate:

CRB Analyse Service GmbH
Bahnhofstraße 14, 37181 Hardegsen

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 in the annexes to the partial accreditation certificates listed below.

D-PL-19161-01-01

D-PL-19161-01-02

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.

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>.

Accreditation



The Deutsche Akkreditierungsstelle attests with this **Partial Accreditation Certificate** that the testing laboratory

CRB Analyse Service GmbH
Bahnhofstraße 14, 37181 Hardegsen

meets the requirements according to DIN EN ISO/IEC 17025:2018 for the conformity assessment activities listed in the annex to this certificate. This includes additional existing legal and normative requirements for the testing laboratory, including those in relevant sectoral schemes, provided they are explicitly confirmed in the annex to this certificate.

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

This accreditation was issued in accordance with Art. 5 Para. 1 Sentence 2 of Regulation (EC) 765/2008, after an accreditation procedure was carried out in compliance with the minimum requirements of DIN EN ISO/IEC 17011 and on the basis of a review and decision of the appointed accreditation committees.

This partial accreditation certificate only applies in connection with the notice of 11.01.2024 with accreditation number D-PL-19161-01.

It consists of this cover sheet, the reverse side of the cover sheet and the following annex with a total of 4 pages.

Registration number of the partial accreditation certificate: **D-PL-19161-01-01**

It is a part of the accreditation certificate: D-PL-19161-01-00.

Berlin, 11.01.2024

Dr. Olga Lettau
Head of Technical Unit

Translation issued:
11.01.2024



Dr. Olga Lettau
Head of Technical Unit

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Deutsche Akkreditierungsstelle

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Valid from: 11.01.2024

Date of issue: 11.01.2024

This annex is a part of the accreditation certificate D-PL-19161-01-00.

Holder of partial accreditation certificate:

CRB Analyse Service GmbH
Bahnhofstraße 14, 37181 Hardegsen

with the location

CRB Analyse Service GmbH
Bahnhofstraße 14, 37181 Hardegsen

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 general with the principles of DIN EN ISO 9001.

Tests in the areas:

Quantitative X-ray analysis of oxidic and oxidable materials;
Semi-quantitative X-ray analysis of solids;
Determination of Carbon in oxidic, carbonatic, and/or SiC-bearing waste-, raw- and processed materials; gravimetric analysis of raw- and processed materials

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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.

Within the given testing field marked with * the testing laboratory is permitted, without being required to inform and obtain prior approval from DAkkS the free choice of standard or equivalent testing methods.

Within the given testing field marked with ** the testing laboratory is permitted, without being required to inform and obtain prior approval from DAkkS the modification, development and refinement of testing methods.

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 listed testing methods are exemplary. The testing laboratory maintains a current list of all testing methods within the flexible scope of accreditation.

1 Quantitative X-ray fluorescence analysis of solids and liquids to determine of elements with atomic numbers from Z=9 (fluorine) to Z= 91 (uranium) **

ISO 29581-2 2010-03	Cement - Test methods – Part 2: Chemical analysis by X-ray fluorescence
DIN EN ISO 12677 2013-02	Chemical analysis of refractory products by XRF - Fused cast bead method
DIN EN 196-2 2013-10	Method of testing cement – Part 2: Chemical analysis of cement
DIN EN 15309 2007-08	Characterization of waste and soil - Determination of elemental composition by X-ray fluorescence <i>(Here of raw materials and materials for reuse)</i>
DIN 51418-2 1996-09	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
DIN 51418-2 Supplement 1 2000-04	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; additional information and examples of calculation

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Annex to the Partial Accreditation Certificate D-PL-19161-01-01

DIN 51729-10 2011-04	Testing of solid fuels – Determination of chemical composition of fuel ash – Part 10: X-Ray Fluorescence Analysis
CRB PA - 08 2018-01	Determination of the KI-value of man-made mineral fibres using X-ray fluorescence analysis
CRB PA – 15 2018-07	Determination of HBCD in polystyrene rigid foam waste using X-ray fluorescence analysis (XRF)

2 Semiquantitative X-ray analysis of solids for determination of elements with ordinal numbers of Z = 9 (fluorine) to Z = 92 (uranium) **

DIN EN 16424 2015-03	Characterization of waste – Screening methods for the element composition by portable X-ray fluorescence instruments <i>(Here of raw materials and materials for reuse)</i>
CRB PA – 03 2018-02	Semi-quantitative screening analysis of solids for the determination of elements with the fundamental parameter programme OMNIAN

3 Determination of carbon in oxidic, carbonatic and/or SiC-bearing waste-, raw- and processed materials by means of elementary analysis*

DIN ISO 10694 1996-08	Soil quality - Determination of organic and total carbon after dry combustion (elementary analysis) <i>(Here of raw materials and materials for reuse)</i>
DIN EN ISO 21068-1 2008-12	Chemical analysis of silicon-carbide-containing raw materials and refractory products - Part 1: General information and sample preparation
DIN EN ISO 21068-2 2008-12	Chemical analysis of silicon-carbide-containing raw materials and refractory products - Part 2: Determination of loss on ignition, total carbon, free carbon and silicon carbide, total and free silica and total and free silicon;
DIN EN 13137 2001-12	Characterization of waste - Determination of total organic carbon (TOC) in waste, sludges and sediments; <i>(Here of raw materials and materials for reuse)</i>

Valid from: 11.01.2024

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Annex to the Partial Accreditation Certificate D-PL-19161-01-01

DIN EN 13639
2002-07 Determination of total organic carbon in limestone; German version
EN 13639:2002
*(Here: alternative test procedure 2: oxidation in furnace with
infrared-detection)*

DIN EN 13639
2017-12 Determination of total organic carbon in limestone
*(Here: alternative test procedure 2: oxidation in furnace with
infrared-detection)*

4 Determination of Loss on Ignition of raw- and processed materials by means of gravimetry*

DIN EN ISO 26845
2008-06 Chemical analysis of refractories - General requirements for wet
chemical analysis, atomic absorption spectrometry (AAS) and
inductively coupled plasma atomic emission spectrometry (ICP-AES)
methods
(Here: Chapter 9: Determination of ignition loss)

DIN EN 196-2
2013-10 Method of testing cement – Part 2: Chemical analysis of cement;
German version EN 196-2:2013
(Here: Determination of ignition loss)

DIN 51081
2002-12 Testing of oxidic raw materials and materials - Determination of
change in mass on ignition

5 Determination of Density

DIN EN 993-18
2002-11 Methods of test for dense shaped refractory products - Part 18:
Determination of bulk density of granular materials by the water
method with vacuum

Abbreviations used:

AAS	atomic absorption spectrometry
CRB PA	In-house method of the CRB Analyse Service GmbH
DIN	Deutsches Institut für Normung e.V. – German institute for standardization
EN	Europäische Norm – European Standard
IEC	International Electrotechnical Commission
ISO	International Organization for Standardization

Valid from: 11.01.2024

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Bahnhofstraße 14, 37181 Hardegsen

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This partial accreditation certificate only applies in connection with the notice of 11.01.2024 with accreditation number D-PL-19161-01.

It consists of this cover sheet, the reverse side of the cover sheet and the following annex with a total of 3 pages.

Registration number of the partial accreditation certificate: **D-PL-19161-01-02**

It is a part of the accreditation certificate: D-PL-19161-01-00.



Berlin, 11.01.2024

Dr. Haiko Blumenthal
Head of Technical Unit

Translation issued:
11.01.2024

Dr. Haiko Blumenthal
Head of Technical Unit

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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 general with the principles of DIN EN ISO 9001.

Tests in the areas:

Testing of sample collection filters, material samples, dust samples and liquids for asbestos and/or artificial mineral fibers;

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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The listed testing methods are exemplary. The testing laboratory maintains a current list of all testing methods within the flexible scope of accreditation.

1 Testing of sample collection filters, material samples, dust samples and liquids on asbestos and/or man-made mineral fibres by means of scanning electron microscopy (SEM/EDX), microanalysis **

ISO 14966 2002-11	Ambient air; Determination of numerical concentration of inorganic fibrous particles - Scanning electron microscopy method <i>(Here: excluding chapters 5.1, 6.1, 6.2)</i>
ISO 22309 2015-11	Microbeam analysis - Quantitative analysis using energy-dispersive spectrometry (EDS) for elements with an atomic number of 11 (Na) or above
VDI 3492 2013-06	Indoor air measurement - Ambient air measurement - Measurement of inorganic fibrous particles - Scanning electron microscopy method
VDI 3861, Blatt 2 2008-01	Stationary source emissions - Measurement of inorganic fibrous particles in exhaust gas - Scanning electron microscopy method
VDI 3866 Blatt 1 2000-12	Determination of asbestos in technical products - Principle - Sampling and sample preparation
VDI 3866 Blatt 5 2017-06	Determination of asbestos in technical products - Scanning electron microscopy method
VDI 3877 Blatt 1 2011-09	Indoor air pollution - Measurement of fibrous dust on settled on surfaces - Sampling and analysis (SEM/EDXA)

Valid from: 11.01.2024

Date of issue: 11.01.2024

Annex to the Partial Accreditation Certificate D-PL-19161-01-02

BGI/GUV 505-46 2013-03	Carcinogenic working materials - Approved analytical methods - Method for separate determination of inorganic fibres in Working Areas – Scanning electron microscopy method
BIA-Arbeitsmappe Nr. 7487 1997-04	Method for analytical determination of small mass contents of asbestos fibres in powders and dusts using SEM/EDX
CRB PA – 10 2013-07	Determination of fiber concentrations in liquids (<i>without sampling</i>)
CRB PA – 14 2018-07	Testing of material samples for man-made mineral fibres (MMMMF) and other artificial fibres

Abbreviations used:

BGI	Hauptverband der gewerblichen Berufsgenossenschaften
BIA	Berufsgenossenschaftliches Institut für Arbeitsschutz
CRB PA	In-house method of the CRB Analyse Service GmbH
DIN	Deutsches Institut für Normung e.V. – German institute for standardization
EDS	Energy dispersive spectroscopy
EDXA	Energy dispersive X-Ray microanalysis
EN	Europäische Norm – European Standard
IEC	International Electrotechnical Commission
ISO	International Organization for Standardisation
VDI	Verein Deutscher Ingenieure

Valid from: 11.01.2024

Date of issue: 11.01.2024

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