DAkkS
Deutsche
Akkreditierungsstelle

Accreditation

The Deutsche Akkreditierungsstelle attests with this **Accreditation Certificate** that

Materialprüfanstalt für das Bauwesen und Produktionstechnik
Nienburger Straße 3, 30167 Hannover

operates a testing laboratory that fulfills the requirements according to DIN EN ISO/IEC 17025:2018 for those conformity assessment activities specified in detail in the annexes listed below. 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 listed below.

D-PL-11220-01-01 **Valid from: 24.11.2025**
D-PL-11220-01-02 **Valid from: 24.11.2025**

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 only applies in connection with the notice of Datum wählen. It consists of this cover sheet, the reverse side of the cover sheet and the corresponding annex

Registration number of the accreditation certificate: **D-PL-11220-01-00**

Berlin, 24.11.2025 Dipl.-Ing. Evelyn Körner | Head of Technical Unit

Translation issued: 24.11.2025

See notes overleaf

Deutsche Akkreditierungsstelle GmbH

Office Berlin
Spittelmarkt 10
10117 Berlin

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-11220-01-01 according to DIN EN ISO/IEC 17025:2018

Valid from: **24.11.2025**

Date of issue: 24.11.2025

This annex is part of the Accreditation Certificate D-PL-11220-01-00.

Holder of the Accreditation Certificate:

Materialprüfanstalt für das Bauwesen und Produktionstechnik
Nienburger Straße 3, 30167 Hannover

with the location

Materialprüfanstalt für das Bauwesen und Produktionstechnik
Nienburger Straße 3, 30167 Hannover

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.

Mechanical-technological and physical testing of building materials, construction products and geotextiles;
Testing of construction products under Regulation (EU) No 305/2011 laying down harmonised conditions for the marketing of construction products (Construction Products Regulation);
Testing of the fire behaviour of construction products for which no indication of a relevant harmonised technical specification is required (item 3, Annex V, (EU) No 305/2011)

This annex to the certificate was issued by the Deutsche Akkreditierungsstelle GmbH (DAkkS) and is digitally sealed.
This annex to the certificate 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 valid and surveyed accreditation can be found in the directory of accredited bodies maintained by Deutsche Akkreditierungsstelle GmbH (www.dakks.de).

The testing laboratory is permitted, without being required to inform and obtain prior approval The testing laboratory is permitted to use standardised or equivalent test methods listed here with different issue dates without being required to prior inform and obtain approval from DAkkS (flexibilization according to category A).
The testing laboratory has an up-to-date list of all test methods within the flexible scope of accreditation. The list is publicly available on the website of the testing laboratory.

Content

1 Mechanical-technological and physical testing of building materials, construction products and geotextiles

1.1 External wall cladding

DIN EN 17468-1 2022-09	Fibre cement products - Determination of pull through and shear resistance and bending strength calculations - Part 1: Flat sheets *here:* chapter 7 – airflow resistance chapter 8 – shear resistance
DIN 18516-1 2010-06	Cladding for external walls, ventilated at rear - Part 1: Requirements, principles of testing
EAD 090062-01-0404	Kits for external wall claddings mechanically fixed, *here:* ANNEX I – Mechanical resistance of the connection between the cladding element and the cladding fixing
EAD 330030-00-0601	Fastener of external wall claddings, *here:* ANNEX A.2.2 - Tension Tests ANNEX A.2.3 - Shear Tests

1.2 Concrete

1.2.1 Fresh concrete

DIN EN 12350-1 2019-09	Testing fresh concrete - Part 1: Sampling and common apparatus
DIN EN 12350-2 2019-09	Testing fresh concrete - Part 2: Slump test
DIN EN 12350-4 2019-09	Testing fresh concrete - Part 4: Degree of compactability
DIN EN 12350-5 2019-09	Testing fresh concrete - Part 5: Flow table test
DIN EN 12350-6 2019-09	Testing fresh concrete - Part 6: Density

DIN EN 12350-7 2022-05	Testing fresh concrete - Part 7: Air content - Pressure methods *here:* chapter 6 - Pressure equalization procedure

1.2.2 Hardened concrete

DIN EN 480-11 2005-12	Admixtures for concrete, mortar and grout - Test methods - Part 11: Determination of air void characteristics in hardened concrete
DIN EN 12390-1 2021-09	Testing hardened concrete - Part 1: Shape, dimensions and other requirements for specimens and moulds
DIN EN 12390-2 2019-10	Testing hardened concrete - Part 2: Making and curing specimens for strength tests
DIN EN 12390-3 2019-10	Testing hardened concrete - Part 3: Compressive strength of test specimens
DIN EN 12390-6 2024-06	Testing hardened concrete - Part 6: Tensile splitting strength of test specimens
DIN EN 12390-7 2021-01	Testing hardened concrete - Part 7: Density of hardened concrete
DIN EN 12390-13 2021-09	Testing hardened concrete - Part 13: Determination of secant modulus of elasticity in compression
DIN EN 14629 2007-06	Products and systems for the protection and repair of concrete structures - Test methods - Determination of chloride content in hardened concrete
ASTM C 469/C 469M 2022	Standard Test Method for Static Modulus of Elasticity and Poisson's Ratio of Concrete in Compression
ASTM C 940 2022	Standard Test Method for Expansion and Bleeding of Freshly Mixed Grouts for Preplaced-Aggregate Concrete in the Laboratory

1.3 Thermal insulating products

DIN EN ISO 16535 2019-10	Thermal insulating products for building applications - Determination of long-term water absorption by immersion
DIN EN ISO 16536 2019-11	Thermal insulating products for building applications - Determination of long-term water absorption by diffusion

DIN EN ISO 16546 2024-09	Thermal insulating products for building applications - Determination of freeze-thaw resistance
DIN EN ISO 29465 2022-12	Thermal insulating products for building applications - Determination of length and width
DIN EN ISO 29466 2023-02	Thermal insulating products for building applications - Determination of thickness
DIN EN ISO 29468 2022-12	Thermal insulating products for building applications - Determination of flatness, *except:* sec. 6.3 (without “tropical climate”) sec. 7.2.3
DIN EN ISO 29469 2023-02	hermal insulating products for building applications - Determination of compression behaviour
DIN EN ISO 29470 2024-09	Thermal insulating products for building applications - Determination of the apparent density
DIN EN ISO 29767 2019-11	Thermal insulating products for building applications - Determination of short-term water absorption by partial immersion
DIN EN ISO 29770 2022-12	Thermal insulating products for building applications - Determination of thickness for floating-floor insulating products
DIN EN 822 2013-05	Thermal insulating products for building applications - Determination of length and width *(withdrawn)*
DIN EN 823 2013-05	Thermal insulating products for building applications - Determination of thickness *(withdrawn)*
DIN EN 824 2013-05	Thermal insulating products for building applications - Determination of squareness
DIN EN 825 2013-05	Thermal insulating products for building applications - Determination of flatness, *except:* sec. 7.2.3 *(withdrawn)*

DIN EN 826 2013-05	Thermal insulating products for building applications - Determination of compression behaviour *(withdrawn)*
DIN EN 1602 2013-05	Thermal insulating products for building applications - Determination of the apparent density *(withdrawn)*
DIN EN 1603 2013-05	Thermal insulating products for building applications - Determination of dimensional stability under constant normal laboratory conditions (23 °C/ 50 % relative humidity)
DIN EN 1604 2013-05	Thermal insulating products for building applications - Determination of dimensional stability under specified temperature and humidity conditions
DIN EN 1605 2013-05	Thermal insulating products for building applications - Determination of deformation under specified compressive load and temperature conditions
DIN EN 1607 2013-05	Thermal insulating products for building applications - Determination of tensile strength perpendicular to faces
DIN EN 1608 2013-05	Thermal insulating products for building applications - Determination of tensile strength parallel to faces *(withdrawn)*
DIN EN 1609 2013-05	Thermal insulating products for building applications - Determination of short term water absorption by partial immersion (*withdrawn*)
DIN EN 12085 2013-06	Thermal insulating products for building applications - Determination of linear dimensions of test specimen *(withdrawn)*
DIN EN 12086 2013-06	Thermal insulating products for building applications - Determination of water vapour transmission properties
DIN EN 12087 2013-06	Thermal insulating products for building applications - Determination of long term water absorption by immersion (*withdrawn*)
DIN EN 12088 2013-06	Thermal insulating products for building applications - Determination of long term water absorption by diffusion *(withdrawn)*

DIN EN 12089 2013-06	Thermal insulating products for building applications - Determination of bending behaviour
DIN EN 12090 2013-06	Thermal insulating products for building applications - Determination of shear behaviour
DIN EN 12091 2013-06	Thermal insulating products for building applications - Determination of freeze-thaw resistance *(withdrawn)*
DIN EN 12431 2013-05	Thermal insulating products for building applications - Determination of thickness for floating floor insulating products *(withdrawn)*

1.4 Masonry units

DIN EN 678 1994-02	Determination of the dry density of autoclaved aerated concrete
DIN EN 679 2005-09	Determination of the compressive strength of autoclaved aerated concrete
DIN EN 680 2006-03	Determination of the drying shrinkage of autoclaved aerated concrete
DIN EN 772-1 2016-05	Methods of test for masonry units - Part 1: Determination of compressive strength
DIN EN 772-3 1998-10	Methods of test for masonry units - Part 3: Determination of net volume and percentage of voids of clay masonry units by hydrostatic weighing
DIN EN 772-9 2005-05	Methods of test for masonry units - Part 9: Determination of volume and percentage of voids and net volume of clay and calcium silicate masonry units by sand filling
DIN EN 772-10 1999-04	Methods of test for masonry units - Part 10: Determination of moisture content of calcium silicate and autoclaved aerated concrete units
DIN EN 772-11 2011-07	Methods of test for masonry units - Part 11: Determination of water absorption of aggregate concrete, autoclaved aerated concrete, manufactured stone and natural stone masonry units due to capillary action and the initial rate of water absorption of clay masonry units

DIN EN 772-13 2000-09	Methods of test for masonry units - Part 13: Determination of net and gross dry density of masonry units (except for natural stone)
DIN EN 772-16 2011-07	Methods of test for masonry units - Part 16: Determination of dimensions
DIN EN 772-20 2005-05	Methods of test for masonry units - Part 20: Determination of flatness of faces of masonry units
DIN EN 772-21 2011-07	Methods of test for masonry units - Part 21: Determination of water absorption of clay and calcium silicate masonry units by cold water absorption

1.5 Masonry

DIN EN 846-2 2000-08	Methods of tests for ancillary components for masonry - Part 2: Determination of bond strength of prefabricated bed joint reinforcement in mortar joints
DIN EN 846-4 2005-01	Methods of test for ancillary components for masonry - Part 4: Determination of load capacity and load-deflection characteristics of straps
DIN EN 846-5 2012-11	Methods of test for ancillary components for masonry - Part 5: Determination of tensile and compressive load capacity and load displacement characteristics of wall ties (couplet test)
DIN EN 846-6 2012-11	Methods of test for ancillary components for masonry - Part 6: Determination of tensile and compressive load capacity and load displacement characteristics of wall ties (single end test)
DIN EN 846-7 2012-11	Methods of test for ancillary components for masonry - Part 7: Determination of shear load capacity and load displacement characteristics of shear ties and slip ties (couplet test for mortar joint connections)
DIN EN 846-8 2006-10	Methods of test for ancillary components for masonry - Part 8: Determination of load capacity and load-deflection characteristics of joist hangers
DIN EN 846-9 2016-08	Methods of test for ancillary components for masonry - Part 9: Determination of flexural resistance and shear resistance of lintels

DIN EN 846-10 2000-08	Methods of test for ancillary components for masonry - Part 10: Determination of load capacity and load deflection characteristics of brackets
DIN EN 1052-1 1998-12	Methods of test for masonry - Part 1: Determination of compressive strength

1.6 Mortar

DIN EN 1015-1 2007-05	Methods of test for mortar for masonry - Part 1: Determination of particle size distribution (by sieve analysis)
DIN EN 1015-2 2007-05	Methods of test for mortar for masonry - Part 2: Bulk sampling of mortars and preparation of test mortars
DIN EN 1015-3 2007-05	Methods of test for mortar for masonry - Part 3: Determination of consistence of fresh mortar (by flow table)
DIN EN 1015-6 2007-05	Methods of test for mortar for masonry - Part 6: Determination of bulk density of fresh mortar
DIN EN 1015-7 1998-12	Methods of test for mortar for masonry - Part 7: Determination of air content of fresh mortar
DIN EN 1015-9 2007-05	Methods of test for mortar for masonry - Part 9: Determination of workable life and correction time of fresh mortar
DIN EN 1015-10 2007-05	Methods of test for mortar for masonry - Part 10: Determination of dry bulk density of hardened mortar
DIN EN 1015-11 2020-01	Methods of test for mortar for masonry - Part 11: Determination of flexural and compressive strength of hardened mortar *except:* chapter 7.2.3 - Air lime mortar and air lime cement mortar with a cement content of no more than 50% of the total mass of the binder
ASTM C 1437 2020	Standard Test Method for Flow of Hydraulic Cement Mortar

1.7 Cement

DIN EN 196-1 2016-11	Methods of testing cement - Part 1: Determination of strength *here:* chapter 9.1 - Flexural tensile strength chapter 9.2 - Compressive strength
DIN EN 196-3 2017-03	Methods of testing cement - Part 3: Determination of setting times and soundness *except:* Determination of spatial stability

1.8 Geotextiles

DIN EN ISO 9863-1 2020-04	Geosynthetics - Determination of thickness at specified pressures - Part 1 Single layers (Restriction: *Only method A*)
DIN EN ISO 9864 2005-05	Geosynthetics - Test method for the determination of mass per unit area of geotextiles and geotextile-related products
DIN EN ISO 10319 2025-02	Geosynthetics - Wide-width tensile test
DIN EN ISO 12236 2006-11	Geosynthetics - Static puncture test (CBR test)

1.9 Other physical tests of building materials

DIN EN ISO 4590 2016-12	Rigid cellular plastics - Determination of the volume percentage of open cells and of closed cells
DIN EN ISO 12570 2018-07	Hygrothermal performance of building materials and products - Determination of moisture content by drying at elevated temperature
DIN EN ISO 12571 2013-12	Hygrothermal performance of building materials and products - Determination of hygroscopic sorption properties *(withdrawn)*

DIN EN ISO 12572 2017-05	Hygrothermal performance of building materials and products - Determination of water vapour transmission properties - Cup method *(withdrawn)*
DIN EN 12664 2001-05	Thermal performance of building materials and products - Determination of thermal resistance by means of guarded hot plate and heat flow meter methods - Dry and moist products with medium and low thermal resistance
DIN EN 12667 2001-05	Thermal performance of building materials and products - Determination of thermal resistance by means of guarded hot plate and heat flow meter methods - Products of high and medium thermal resistance
DIN EN 12939 2001-02	Thermal performance of building materials and products - Determination of thermal resistance by means of guarded hot plate and heat flow meter methods - Thick products of high and medium thermal resistance
DIN EN 29052-1 1992-08	Acoustics; determination of dynamic stiffness; part 1: materials used under floating floors in dwellings
DIN EN 29053 1993-05	Acoustics; materials for acoustical applications; determination of airflow resistance (*withdrawn*)

2 Fire behaviour of building materials and components

IMO 2010 FTP Code Part 1 /IMO-Resolution MSC. 307(88) 2010-12	Non-combustibility test

3 Testing of construction products (system 3 for assessment and verification of constancy of performance) under Regulation (EU) No 305/2011 laying down harmonised conditions for the marketing of construction products (Construction Products Regulation)

Decision of the Commission	System[1)]	Technical specification
1995/467/EC Gypsum products	3	**EN 14195:2005+AC:2006** Metal framing components for gypsum board systems - Definitions, requirements and test methods
1997/740/EC Masonry and related products	3	**EN 845-1:2013 + A1:2016** Specification for ancillary components for masonry - Part 1: Wall ties, tension straps, hangers and brackets
		EN 845-2:2013 + A1:2016 Specification for ancillary components for masonry - Part 2: Lintels
		EN 845-3:2013 + A1:2016 Specification for ancillary components for masonry - Part 3: Bed joint reinforcement of steel meshwork
1997/808/EC Floor coverings	3	**EN 13813:2002** Screed material and floor screeds - Screed material - Properties and requirements
1998/436/EC Roof coverings, rooflights, roof windows and ancillary products	3	**EN 492: 2012+A2:2018** Fibre-cement slates and fittings - Product specification and test methods
		EN 494:2012+A1:2015 Fibre-cement profiled sheets and fittings - Product specification and test methods
1998/437/EC Internal and external wall and ceiling finishes	3	**EN 12467:2012+A2:2018** Fibre-cement flat sheets - Product specification and test methods
1999/91/EC Thermal insulating products	3	**EN 13162:2012+A1:2015** Thermal insulation products for buildings - Factory made mineral wool (MW) products - Specification
		EN 13163:2012+A1:2015 Thermal insulation products for buildings - Factory made expanded polystyrene (EPS) products - Specification
		EN 13164:2012+A1:2015 Thermal insulation products for buildings - Factory made extruded polystyrene foam (XPS) products - Specification
		EN 13165:2012+A2:2016 Thermal insulation products for buildings - Factory made rigid polyurethane foam (PU) products - Specification

[1)] System for assessment and verification of constancy of performance

The requirements for a testing laboratory are fulfilled according to article 43 of the Construction Products Regulation. Testing methods, which are necessary for determining the product type and cannot be executed by the holder of the certificate, are described in the list of subcontractors.

Without prior approval by the DAkkS German Accreditation Body, the testing laboratory body is permitted to use new revisions of the harmonised technical specifications.

4 Testing of the fire behaviour of construction products for which no indication of a relevant harmonised technical specification is required (item 3, Annex V, (EU) No. 305/2011)

4.1 Reaction to fire

EN ISO 1182 2020	Reaction to fire tests for products - Non-combustibility test
EN ISO 1716 2018	Reaction to fire tests for products - Determination of the gross heat of combustion (calorific value), *except:* chapter 6.5 – cigarette paper
EN ISO 11925-2 2020	Reaction to fire tests - Ignitability of products subjected to direct impingement of flame - Part 2: Single-flame source test
EN 13823 2023	Reaction to fire tests for building products - Building products excluding floorings exposed to the thermal attack by a single burning item

Abbreviations used:

ASTM	American Society for Testing and Materials
DIN	Deutsches Institut für Normung e.V. – German Institute for standardization
EAD	European Assessment Document
EN	Europäische Norm – European Standard
IEC	International Electrotechnical Commission
ISO	International Organization for Standardisation
XXXX/xxx/EC	Decision of the Commission of the European Community

Deutsche Akkreditierungsstelle

Annex to the Accreditation Certificate D-PL-11220-01-02 according to DIN EN ISO/IEC 17025:2018

Valid from: **24.11.2025**

Date of issue: 24.11.2025

This annex is part of the Accreditation Certificate D-PL-11220-03-00.

Holder of the Accreditation Certificate:

Materialprüfanstalt für das Bauwesen und Produktionstechnik
Nienburger Straße 3, 30167 Hannover

with the locations

Materialprüfanstalt für das Bauwesen und Produktionstechnik
Nienburger Straße 3, 30167 Hannover

Materialprüfanstalt für das Bauwesen und Produktionstechnik
An der Universität 2, 30823 Garbsen

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.

Tests in the fields:

Mechanical-technological testing of metals, grinding wheels, saw blades and comparable products; analytical testing of gas and water products; testing of penetrants

Flexible Scope of Accreditation:

The testing laboratory is permitted to use standardised or equivalent test methods listed here with different issue dates without being required to prior inform and obtain approval from DAkkS (flexibilization according to category A).

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

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

HA = Hannover GA = Garbsen

1 Mechanical-technological testing of metals

1.1 Mechanical-technological testing of metals

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

1.2 Tests on grinding wheels and similar products

DIN EN 847-1 2018-01	Tools for woodworking – Safety requirements – Part 1: Milling tools, circular saw blades	GA
DIN EN 1083-2 1997-07	Power driven brushes – Part 2: Safety requirements	GA
DIN EN 12413 2019-12	Safety requirements for bonded abrasive products	GA
DIN EN 13236 2019-07	Safety requirements for superabrasive products	GA

DIN EN 13743 2017-04	Safety requirements for coated abrasive products	GA

2 Analytical testing of gas and water products

DIN EN 723 2009-07	Copper and copper alloys – Combustion method for determination of the carbon content on the inner surface of copper tubes or fittings	GA
RAL GZ 641 2018-09	Copper pipe system; Quality assurance	GA

3 Testing of penetrants

ISO 760 1978-12	Determination of Water – Karl Fischer Method (General method)	GA
DIN EN ISO 3452-2 2014-03	Non-destructive testing – Penetrant testing – Part 2: Testing of penetrant materials	GA
DIN EN ISO 3452-3 2014-03	Non-destructive testing – Penetrant testing – Part 3: Reference test blocks	GA
DIN EN ISO 3452-6 2009-04	Non-destructive testing – Penetrant testing – Part 6: Penetrant testing at temperatures lower than 10 °C	GA
ASME CODE T-641 2019	ASME Boiler und Pressure Vessel Code – Non-destructive Examination; Subsection a; Article 6 “Liquid Penetrant Examination”; CODE T-641 “Control of Contaminants”; Appendix II-641 “Control of contaminants for Liquid Penetrant Examination – Nickel Base Alloys”	GA
ASTM E1135 2019	Standard Test Method for Comparing the Brightness of Fluorescent Penetrants	GA
ASTM E1417/E1417M 2016	Standard Practice for Liquid Penetrant Testing	GA

Abbreviations used:

ASME	American Society of Mechanical Engineers
ASTM	American Society for Testing and Materials
DIN	Deutsches Institut für Normung e. V. – German institute for standardization
DVGW	Deutscher Verein des Gas- und Wasserfaches e. V. – German Association of the Gas and Water Industry
EN	Europäische Norm – European Standard
IEC	International Electrotechnical Commission
ISO	International Organization for Standardization
RAL	Deutsches Institut für Gütesicherung und Kennzeichnung e. V. – German Institute for Quality Assurance and Labelling