



Deutsche
Akkreditierungsstelle

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

Materialprüfanstalt für das Bauwesen und Produktionstechnik

at the locations

**Nienburger Straße 3, 30167 Hannover
An der Universität 2, 30823 Garbsen**

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

**Mechanical-technological and physical testing of building materials, construction products, plastics, metals, grinding wheels, saw blades and comparable products;
Analytical testing of gas and water products;
Non-destructive testing (NDT);
Testing of dye penetrants and of reference test blocks for penetrant materials;
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)**

The accreditation certificate shall only apply in connection with the notice of accreditation of 12.10.2021 with the accreditation number D-PL-11220-01. It comprises the cover sheet, the reverse side of the cover sheet and the following annex with a total of 15 pages.

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

Berlin,
12.10.2021

Dr Heike Manke
Head of Division

Translation issued:
10.11.2021

Head of Division

*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 may be found respectively in the database of accredited bodies of Deutsche Akkreditierungsstelle GmbH <https://www.dakks.de/en/content/accredited-bodies-dakks>.*

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) 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-11220-01-00 according to DIN EN ISO/IEC 17025:2018

Valid from: 12.10.2021

Date of issue: 12.10.2021

Holder of certificate:

Materialprüfanstalt für das Bauwesen und Produktionstechnik

at the locations:

**Nienburger Straße 3, 30167 Hannover
An der Universität 2, 30823 Garbsen**

Tests in the fields:

Mechanical-technological and physical testing of building materials, construction products, plastics, metals, grinding wheels, saw blades and comparable products;

Analytical testing of gas and water products;

Non-destructive testing (NDT);

Testing of dye penetrants and of reference test blocks for penetrant materials;

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)

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 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>.

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

Locations: Hanover = (H) Garbsen = (G)

1 Mechanical-technological and physical testing of building materials, construction products (H)

1.1 External wall cladding

DIN 18516-1 2010-06	Cladding for external walls, ventilated at rear – Part 1: Requirements, principles of testing
EAD 090062-00-0404 2018-07	Kits for external wall claddings mechanically fixed here: ANNEX I – Mechanical resistance of the connection between the cladding elements and the cladding fixing

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 2019-09	Testing fresh concrete – Part 7: Air content – Pressure methods

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 1348 2007-11	Adhesives for tiles – Determination of tensile adhesion strength for cementitious adhesives <i>(withdrawn)</i>
DIN EN 12390-1 2012-12	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 2010-09	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 2014-06	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

1.3 Thermal insulating products

DIN EN 822 2013-05	Thermal insulating products for building applications – Determination of length and width
DIN EN 823 2013-05	Thermal insulating products for building applications – Determination of thickness
DIN EN 826 2013-05	Thermal insulating products for building applications – Determination of compression behaviour
DIN EN 1602 2013-05	Thermal insulating products for building applications – Determination of apparent density

Annex to the accreditation certificate D-PL-11220-01-00

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 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
DIN EN 1609 2013-05	Thermal insulating products for building applications – Determination of short term water absorption by partial immersion <i>(withdrawn)</i>
DIN EN 12085 2013-06	Thermal insulating products for building applications – Determination of linear dimensions of test specimen
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 <i>(withdrawn)</i>
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
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 <i>(withdrawn)</i>

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 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 772-13 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

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 tests 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 tests for ancillary components for masonry – Part 5: Determination of tensile and compressive load capacity and load displacement characteristics of wall ties (couplet test)

Annex to the accreditation certificate D-PL-11220-01-00

DIN EN 846-6 2012-11	Methods of tests 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 tests 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 tests 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 tests for ancillary components for masonry – Part 9: Determination of flexural resistance and shear resistance of lintels
DIN EN 846-10 2000-08	Methods of tests 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

1.6.1 Masonry 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 1015-4 1998-12	Methods of test for mortar for masonry – Part 4: Determination of consistence of fresh mortar (by plunger penetration)
DIN EN 1015-6 2007-05	Methods of test for mortar for masonry – Part 6: Determination of bulk density of fresh mortar

Annex to the accreditation certificate D-PL-11220-01-00

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

1.7 Cement

DIN EN 196-1 2016-11	Methods of testing cement – Part 1: Determination of strength
DIN EN 196-3 2017-03	Methods of testing cement – Part 3: Determination of setting times and soundness

1.8 Other physical tests of building materials

DIN EN ISO 178 2019-08	Plastics – Determination of flexural properties
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
DIN EN ISO 12572 2017-05	Hygrothermal performance of building materials and products – Determination of water vapour transmission properties
DIN EN 1931 2001-03	Flexible sheets for waterproofing – Bitumen, plastic and rubber sheets for roof waterproofing – Determination of water vapour transmission properties

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

2. Mechanical-technological and physical testing of plastics and metals

2.1 Tensile, compression and bend testing (H)

DIN EN ISO 527-1 2019-12	Plastics – Determination of tensile properties – Part 1: General principles
DIN EN ISO 527-2 2012-06	Plastics – Determination of tensile properties – Part 2: Test conditions for moulding and extrusion plastics
DIN EN ISO 527-3 2019-02	Plastics – Determination of tensile properties – Part 3: Test conditions for films and panels
DIN EN ISO 527-4 1997-07	Plastics – Determination of tensile properties – Part 4: Test conditions for isotropic and anisotropic fibre-reinforced plastic composites
DIN EN ISO 527-5 2010-01	Plastics – Determination of tensile properties – Part 5: Test conditions for unidirectional fibre-reinforced plastic composites

2.2 Mechanical-physical tests on textiles (H)

DIN EN ISO 9863-1 2020-04	Geosynthetics – Determination of thickness at specified pressures – Part 1: Single layers (Restriction: <i>Only method A</i>)
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 2015-09	Geosynthetics – Wide-width tensile test
DIN EN ISO 12236 2006-11	Geosynthetics – Static puncture test (CBR test)

2.3 Other physical tests on textiles (G)

DIN EN ISO 1133-1 2012-03	Plastics – Determination of the melt mass-flow rate (MFR) and melt volume-flow rate (MVR) of thermoplastics – Part 1: Standard procedure (<i>Restriction: MFR only</i>)
DIN EN ISO 1183-1 2019-09	Plastics – Methods for determining the density of non-cellular plastics – Part 1: Immersion method, liquid pyknometer method and titration method (<i>Restriction: Only method A – Immersion method</i>)

2.4 Mechanical-technological tests on metals (H)

DIN EN ISO 6892-1 2020-06	Metallic materials – Tensile testing – Part 1: Method of test at room temperature (<i>Restriction: Only method B</i>)
------------------------------	---

2.5 Non-destructive testing (NDT) (G)

ISO 760 1978-12	Determination of water; Karl Fischer method (general method) 7. Direct electrometric titration
DIN EN ISO 3452-2 2014-03	Non-destructive testing – Penetrant testing – Part 2: Testing of penetrant materials (Restriction: No test for stress corrosion)
DIN EN ISO 3452-3 2014-03	Non-destructive testing – Penetrant testing – Part 3: Reference test blocks (Here: 5.2 Measurement)
DIN EN ISO 3452-5 2009-04	Non-destructive testing – Penetrant testing – Part 5: Penetrant testing at temperatures higher than 50 °C
DIN EN ISO 3452-6 2009-04	Non-destructive testing – Penetrant testing – Part 6: Penetrant testing at temperatures lower than 10 °C
ASME CODE T-641 2019	ASME Boiler and Pressure Vessel Code – Non-destructive Examination, Subsection a, Article 6 “Mandatory Appendices” Appendix II: Control of contaminations for liquid penetrant examination / II-641 Nickel Base Alloys
ASTM E 1135 2019	Standard Test Method for Comparing the Brightness of Fluorescent Penetrants 10. Procedure for the Model S 291
ASTM E 1417/E 1417M 2016-06	Standard Practice for Liquid Penetrant Testing 7.8.2.2 Penetrant Brightness 7.8.2.4 Water Content

2.6 Testing of gas and water products (G)

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
DIN EN 1057 2010-06	Copper and copper alloys – Seamless, round copper tubes for water and gas in sanitary and heating applications, <u>here:</u> section 10.2 and section 10.4)
DIN EN 1254-1 1998-03	Copper and copper alloys – Plumbing fittings – Part 1: Fittings with ends for capillary soldering or capillary brazing to copper tubes, <u>here:</u> section 5.4.2

Annex to the accreditation certificate D-PL-11220-01-00

DVGW GW 8 2009-07	Copper fittings with ends for capillary soldering in gas and drinking water installations – Requirements and tests, <i>here:</i> section 5.4.2.1 in conjunction with Annex B
DVGW GW 392 2015-04	Seamless drawn copper tubes for gas and drinking water installations and seamless copper tubes with internal tin plating for drinking water installations – Requirements and tests, <i>here:</i> section 4.1.3 and section 4.1.5 in conjunction with Annex A
RAL-GZ 641/1 2019-09	System copper tube – Special quality and test specifications for copper tubes, <i>here:</i> section 1-2.2 and section 1-7.2 in conjunction with Annex 1
RAL-GZ 641/3 2019-09	System copper tube – Special quality and test specifications for fittings with ends for capillary soldering made of copper tube, <i>here:</i> section 3-4.9.2
DVGW GW 335B2 2004-09	Plastic piping systems in gas and water supply – Requirements and tests – Part B 2: Fittings made of PE 80 and PE 100, <i>here:</i> section 5.2.1

2.7 Tests on grinding wheels and comparable products (G)

DIN EN 847-1 2018-01	Tools for woodworking – Safety requirements – Part 1: Milling tools, circular saw blades
DIN EN 1083-2 1997-07	Power driven brushes – Part 2: Safety requirements
DIN EN 12413 2019-12	Safety requirements for bonded abrasive products
DIN EN 13236 2019-07	Safety requirements for superabrasive products
DIN EN 13743 2017-04	Safety requirements for coated abrasive products

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) (H)

Decision of the Commission	System¹⁾	Technical specification
1995/467/EG Gypsum products	3	EN 520:2004+A1:2009 Gypsum plasterboards – Definitions, requirements and test methods
		EN 12859:2011 Gypsum blocks – Definitions, requirements and test methods
		EN 12860:2001+AC:2002 Gypsum based adhesives for gypsum blocks – Definitions, requirements and test methods
		EN 13279-1:2008 Gypsum binders and gypsum plasters – Part 1: Definitions and requirements
		EN 13658-1:2005 Metal lath and beads – Definitions, requirements and test methods – Part 1: Internal plastering
		EN 13658-2:2005 Metal lath and beads – Definitions, requirements and test methods – Part 2: External rendering
		EN 13950:2014 Gypsum board thermal/acoustic insulation composite panels – Definitions, requirements and test methods
		EN 13963:2005+AC:2006 Jointing materials for gypsum plasterboards – Definitions, requirements and test methods
		EN 14190:2014 Gypsum plasterboard products from reprocessing – Definitions, requirements and test methods
		EN 14195:2005+AC:2006 Metal framing components for gypsum plasterboard systems – Definitions, requirements and test methods
1997/740/EG 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

Decision of the Commission	System ¹⁾	Technical specification
1997/740/EG Masonry and related products	3	EN 845-3:2013 + A1:2016 Specification for ancillary components for masonry – Part 3: Bed joint reinforcement of steel meshwork
1997/808/EG Floor coverings	3	EN 13813:2002 Screed material and floor screeds – Screed materials – Properties and requirements
1998/436/EG Roof coverings, rooflights, roof windows and ancillary products	3	EN 490:2011 Concrete roofing tiles and fittings for roof covering and wall cladding – Product specifications
		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
		EN 1304:2005 Clay roofing tiles and fittings – Product definitions and specifications
		EN 14509:2013 Self-supporting double skin metal faced insulating panels – Factory made products – Specifications
1998/437/EG Internal and external wall and ceiling finishes	3	EN 438-7:2005 High-pressure decorative laminates (HPL) – Sheets based on thermosetting resins (usually called laminates) – Part 7: Compact laminate and HPL composite panels for internal and external wall and ceiling finishes
		EN 12467:2012+A2:2018 Fibre-cement flat sheets – Product specification and test methods
		EN 13964:2014 Suspended ceilings – Requirements and test methods
		EN 14716:2004 Stretched ceilings
		EN 15102:2007+A1:2011 Decorative wall coverings –Roll and panel form
1999/91/EG Thermal insulating products	3	EN 14933:2007 Thermal insulation and light weight fill products for civil engineering applications – Factory made products of expanded polystyrene (EPS) – Specification
		EN 13162:2012+A1:2015 Thermal insulation products for buildings – Factory made wood fibre (MW) products – Specification

Decision of the Commission	System ¹⁾	Technical specification
1999/91/EG Thermal insulating products	3	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
		EN 13986:2004+A1:2015 Wood-based panels for use in construction
1999/469/EG Products related to concrete, mortar and grout	3	EN 13454-1:2004 Binders, composite binders and factory made mixtures for floor screeds based on calcium sulfate
		EN 14889-1:2006 Fibres for concrete – Part 1: Steel fibres – Definitions, specifications and conformity (Restriction: Not EN 14845-2)
		EN 14889-2:2006 Fibres for concrete – Part 2: Polymer fibres – Definitions, specifications and conformity (Restriction: Not EN 14845-2 and ISO 2062)
1999/470/EG Construction adhesives	3	EN 12004:2007+A1:2012 Adhesives for tiles – Requirements, evaluation of conformity, classification and designation

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) (H)

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)
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 2020	Reaction to fire tests for building products – Building products excluding floorings exposed to the thermal attack by a single burning item

In conjunction with:

EN 13501-1 2018	<i>Fire classification of construction products and building elements – Part 1: Classification using data from reaction to fire tests</i>
--------------------	---

Abbreviations used:

A	Standard change
ASME	American Society of Mechanical Engineers
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	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)
XXXX/xxx/EC	Decision of the Commission of the European Communities