

# **Accreditation**



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

# Materialprüfanstalt für das Bauwesen (MPA BS) Beethovenstraße 52, 38106 Braunschweig

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 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 notices of 29.08.2024 with accreditation number D-PL-11267-01.

It consists of this cover sheet, the reverse side of the cover sheet and the following annex with a total of 46 pages.

Registration number of the accreditation certificate: D-PL-11267-01-00

Berlin, 29.08.2024

Dipl.-Ing. Evelyn Körner Head of Technical Unit Translation issued: 29.08.2024

Dipl.-Ing. Evelyn Körner 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.

# 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-11267-01-00 according to DIN EN ISO/IEC 17025:2018

Valid from: 29.08.2024

Date of issue: 30.10.2024

Holder of accreditation certificate:

Materialprüfanstalt für das Bauwesen (MPA BS) Beethovenstraße 52, 38106 Braunschweig

with the location

Materialprüfanstalt für das Bauwesen (MPA BS)

Department 1 – Structures and Construction Materials

Department 2 – Fire Safety

Beethovenstraße 52, 38106 Braunschweig

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.

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



Mechanical, physical, hygric, thermic and chemico-physical tests on mineral construction materials such as aggregates, cements, concrete, steel fibre concrete, concrete products, bricks, mortars, plasters, screed, on load bearing walls and non-load bearing light partitions, ceiling sheathings, pipe anchors, fixtures and manholes for road surfaces, construction steel and concrete steel, stainless steel, prestressed steel, concrete steel connections, fibres for concrete, prestressed components, on concrete elements and structures with respect to durability, on concrete steel components and structures in relation to construction structures inspections, on restoration materials, construction structures sealing, on organic and inorganic construction products, on heat insulators and fibre cement products

Fire protection testing of construction elements (load bearing capacity, integrity, insulation, mechanical resistance, functional integrity and smoke control); testing under actual fire conditions (combustion of warehouse goods, smoke control, noise protection walls, façades, roofs); testing of data protection cabinets, containers and offices; testing of safes, fire protection testing of equipment, facilities and tanks; reaction to fire testing of building materials, testing of combustibility/flammability, fire spread, heat release, glow gradient and development of exhaust gas of construction materials and reaction to fire of building materials and building components in ship-building according to IMO

Testing of construction products (system of assessment and verification of constancy of performance 3) in accordance with the Construction Products Regulation (EU) No 305/2011 to defined harmonised conditions for the marketing of construction products (Construction Products Regulation - CPR)

Tests of reaction to fire, resistance to fire and of the external fire performance, for which the reference to a relevant harmonised technical specification is not required (point 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.



#### Content

1	Dep	artm	ent 1 - Structures and Construction Materials	5
	1.1	Agg	regates for mortar and concrete	5
	1.2	Con	crete	6
	1.2.	1	Normal concrete	6
	1.2.	2	Sprayed concrete	8
	1.2.	.3	Fibre concrete	8
	1.3	Dur	ability of concrete components and structures	9
	1.4	Test	ts of concrete components and structures in relation to Inspections	9
	1.5	Gro	uting mortar	9
	1.6		ficially produced mineral construction products— concrete products (aerated concret concrete concrete blocks, ancillary components for masonry)	
	1.7	Met	allic materials	11
	1.7.	1	Mechanical tests	11
	1.7.	2	Reinforcing steel	12
	1.7.	.3	Reinforced steel couplings	12
	1.7.	4	Prestressed steel	12
	1.7.	.5	Steel fibres	13
	1.8	Cab	les	13
	1.9	Wal	l and ceiling finishes and partitions	14
	1.10	Pipi	ng anchorages	15
	1.11	Con	struction waterproofing	15
	1.12	Res	toration materials	20
	1.13	Test	ting of inorganic construction materials	20
	1.14	Test	ting of organic construction materials	20
	1.15	Test	ting of thermal insulating products	21
	1.16	Moi	rtar, plastering and floor	
	1.16	5.1	Masonry mortar and plastering mortars	23
	1.16	5.2	Floor screeds	24
	1.17	Fibr	e-cement products	25
2	Dep	artm	ent 2 - Fire Safety	26
	2.1	Fire	behaviour of building materials and building components	26
	2.2	Fire	barriers and smoke control doors	34



	2.2.	1 Windows, doors, gates, curtain walling3	5
	2.3	Smoke extraction	5
	2.4	Datarooms, -cabinets, container and Safety storage cabinets	6
	2.5	Firetests in Shipbuilding	6
3	perf defi	ring of construction products (system of assessment and verification of constancy of cormance 3) in accordance with the Construction Products Regulation (EU) No 305/2011 to need harmonised conditions for the marketing of construction products (Construction Product ulation - CPR)	o S
4	refe	res of reaction to fire, resistance to fire and of the external fire performance, for which the rence to a relevant harmonised technical specification is not required (point 3. Annex V, (EU 305/2011)	I)
	4.1	Reaction to fire	2
	4.2	Resistance to fire	2
	4.3	External fire performance	5



## 1 Department 1 - Structures and Construction Materials

#### 1.1 Aggregates for mortar and concrete

DIN EN 932-1 1996-11	Test for general properties of aggregates - Part 1: Methods for sampling
DIN EN 932-2 1999-03	Test for general properties of aggregates - Part 2: Methods for reducing laboratory samples
DIN EN 933-1 2012-03	Tests for geometrical properties of aggregates - Part 1: Determination of particle size distribution - Sieving method
DIN EN 933-2 2020-09	Test for geometrical properties of aggregates - Part 2: Determination of particle size distribution; test sieves, nominal size of apertures
DIN EN 933-4 2015-01	Tests for geometrical properties of aggregates - Part 4: Determination of particle shape - Shape index
DIN EN 933-5 2023-01	Tests for geometrical properties of aggregates - Part 5: Determination of percentage of crushed and broken surfaces in coarse aggregate particles
DIN EN 933-7 1998-05	Tests for geometrical properties of aggregates - Part 7: Determination of shell content; percentage of shells in coarse aggregates
DIN EN 1097-3 1998-06	Tests for mechanical and physical properties of aggregates - Part 3: Determination of loose bulk density and voids (except: Part A and Part C2)
DIN EN 1097-5 2008-06 Corrigendum 1 2008-09	Tests for mechanical and physical properties of aggregates - Part 5: Determination of the water content by drying in a ventilated oven
DIN EN 1097-6 2022-05	Tests for mechanical and physical properties of aggregates - Part 6: Determination of particle density and water absorption (here: Annex G to max. 4 mm, without Annex E)



DIN EN 1097-7 2022-12	Tests for mechanical and physical properties of aggregates - Part 7: Determination of the particle density of filler - Pyknometer method
DIN EN 1367-1 2007-06	Tests for thermal and weathering properties of aggregates - Part 1: Determination of resistance to freezing and thawing
DIN EN 12371 2010-07	Natural stone test methods - Determination of frost resistance
DIN EN 13755 2008-08	Natural stone test methods - Determination of water absorption at atmospheric pressure
DIN 52099 2013-10	Testing of aggregates - Testing with respect to purity
DIN 52102 2013-10	Test methods for aggregates - Determination of dry bulk density by the cylinder method and calculation of the ratio of density

#### 1.2 Concrete

#### 1.2.1 Normal 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



DIN EN 12350-8 2019-09	Testing fresh concrete - Part 8: Self-compacting concrete - Slump-flow test
DIN EN 12350-9 2010-12	Testing fresh concrete - Part 9: Self-compacting concrete - V-funnel test
DIN EN 12350-10 2010-12	Testing fresh concrete - Part 10: Self-compacting concrete - L box test
DIN EN 12350-11 2010-12	Testing fresh concrete - Part 11: Self-compacting concrete - Sieve segregation test
DIN EN 12350-12 2010-12	Testing fresh concrete - Part 12: Self-compacting concrete - J-ring test
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 12390-5 2019-10	Testing hardened concrete - Part 5: Flexural strength of test specimens
DIN EN 12390-6 2024-05	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 12390-8 2019-10	Testing hardened concrete - Part 8: Depth of penetration of water under pressure
DIN CEN/TS 12390-9 2017-05	Testing hardened concrete - Part 9: Freeze-thaw resistance - Scaling (pre-standard)
DIN EN 12390-13 2021-09	Testing hardened concrete - Part 13: Determination of secant modulus of elasticity in compression
DIN EN 12390-16 2019-12	Testing hardened concrete - Part 16: Determination of the shrinkage of concrete

Valid from: 29.08.2024

Date of issue: 30.10.2024 Page 7 of 46



DIN EN 12390-17 Testing hardened concrete - Part 17: Determination of creep of

2019-12 concrete in compression

CEN/TR 15177 DIN-Technical report, Testing the freeze-thaw resistance of concrete -

2006-06 Internal structural damage

RILEM-Guideline CPC-7 Direct tension of concrete specimens (axial tensile strength)

1975

#### 1.2.2 Sprayed concrete

DIN EN 14488-1 Testing sprayed concrete - Part 1: Sampling fresh and hardened

2005-11 concrete

DIN EN 14488-3 Testing sprayed concrete - Part 3: Flexural strengths (first peak,

2006-09 ultimate and residual) of fibre reinforced beam specimen

DIN EN 14488-4 Testing sprayed concrete - Part 4: Bond strength of cores by direct

2008-08 tension

DIN EN 14488-6 Testing sprayed concrete - Part 6: Thickness of concrete on a

2006-09 substrate

DIN EN 14488-7 Testing sprayed concrete - Part 7: Fibre content of fibre reinforced

2006-08 concrete

#### 1.2.3 Fibre concrete

DIN EN 14651 Test method for metallic fibre concrete - Measuring the flexural

2007-12 tensile strength (limit or proportionality (LOP), residual)

DIN EN 14721 Test method for metallic fibre concrete - Measuring the fibre content

2007-12 in fresh and hardened concrete

DIN EN 14845-1 Test methods for fibres in concrete - Part 1: Reference concretes

2007-09

DIN EN 14845-2 Test methods for fibres in concrete - Part 2: Effect on concrete

2006-11



DIN 1048-5 Testing concrete; testing of hardened concrete (specimens prepared

1991-06 in mould)

(withdrawn standard)

ÖBV Richtlinie Erhöhter baulicher Brandschutz für unterirdische Verkehrsbauwerke

2015-04 aus Beton

(hier:

Anhang A 4 – Ermittlung des PP-Fasergehalts am Frischbeton Anhang A.5 – Ermittlung des PP-Fasergehalts am Festbeton)

#### 1.3 **Durability of concrete components and structures**

Products and systems for the protection and repair of concrete **DIN EN 14630** 2007-01

structures - Test methods - Determination of carbonation depth in

hardened concrete by the phenolphthalein method

DIN 52108 Testing of inorganic non-metallic materials - Wear test using the

2010-05 grinding wheel according to Böhme - Grinding wheel method

FB1-AA005 Location of concrete steel reinforcement using magnetic inductive

method 2022-06

FB1-PA005 Test of frost thaw agent resistance of concrete using CDF-Test

2016-02

#### Tests of concrete components and structures in relation to Inspections 1.4

DIN EN 12504-1 Testing concrete in structures - Part 1: Cored specimens - Taking,

2021-02 examining and testing in compression

DIN EN 12504-2 Testing concrete in structures - Part 2: Non-destructive testing -

2021-10 Determination of rebound number

#### 1.5 **Grouting mortar**

**DIN EN 445** Grout for prestressing tendons - Test methods

2008-01

Valid from: 29.08.2024

Date of issue: 30.10.2024 Page 9 of 46



1.6	Artificially produced mineral construction products— concrete products (aerated
	concrete, light concrete, concrete blocks, ancillary components for 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 846-3 2000-08	Methods of tests for ancillary components for masonry - Part 3: Determination of shear load capacity of welds in prefabricated bed joint reinforcement
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 846-11 2000-08	Methods of test for ancillary components for masonry - Part 11: Determination of dimensions and bow of lintel
DIN EN 846-14 2012-11	Methods of test for ancillary components for masonry - Part 14: Determination of the initial shear strength between the prefabricated part of a composite lintel and the masonry above it



DIN EN 1338 Concrete paving blocks - Requirements and test methods

2003-08 (without annex G and I)

Corrigendum 1

2006-11

DIN EN 1339 Concrete paving flags - Requirements and test methods

2003-08 (without annex G and I)

Corrigendum 1

2006-11

DIN EN 1340 Concrete kerb units; Requirements and test methods

2003-08 (without annex G and I)

Corrigendum 1

2006-11

DIN EN 1343 Kerbs of natural stone for external paving - Requirements and test

2013-03 methods

Amendment A20

2014-07

DIN EN 1353 Determination of moisture content of autoclaved aerated concrete

1997-02

DIN EN 1433 Drainage channels for vehicular and pedestrian areas - Classification,

2005-09 design and testing requirements, marking and evaluation of

conformity (here: clause 9)

#### 1.7 Metallic materials

#### 1.7.1 Mechanical tests

DIN ISO 7801 Metallic materials; Wire; Reverse bend test

2008-10

DIN ISO 7802 Metallic materials - Wire - Wrapping test

2014-11

DIN EN ISO 6892-1 Metallic materials - Tensile testing - Part 1: Method of test at room

2020-06 temperature, method B

DIN EN 10002-1 Metallic materials - Tensile testing - Part 1: Method of testing (at

2001-12 ambient temperature)

(withdrawn standard)

Valid from: 29.08.2024 Date of issue: 30.10.2024

Page 11 of 46



ASTM A 370 Standard test methods and definitions for mechanical testing

2019 of steel products

(Testing of mechanicals properties of steel products)

1.7.2 Reinforcing steel

DIN EN ISO 15630-1 Steel for the reinforcement and prestressing of concrete - Test

2019-05 methods - Part 1: Reinforcing bars, rods and wire

(here: without clause 9)

DIN EN ISO 15630-2 Steel for the reinforcement and prestressing of concrete - Test

2019-05 methods - Part 2: Welded fabric and lattice girder

(here: without clause 9)

EAD 160055-00-0301 Lattice girders for the increase of punching shear resistance of flat

slabs or footings and ground slabs

here:

Annex B6 strength of the bended loops Annex B7 fatigue tests – audit testing Annex C3 requirements on test setup

1.7.3 Reinforced steel couplings

EAD 200014-01-0103 Pile Joints and Rock shoes for concrete piles

here:

clause 2.1 essential characteristics of the product clause 2.2.1 mechanical resistance and stability

DIBt-Richtlinie Centre of Competence for Constrution (DIBt) Guideline for the

2007-05 national technical approvals and surveillances of mechanical concrete

steel connections

(here: clause 2.0, chapter 4)

DIBt-CUAP Couplings for standardised reinforcing bars ETA request

2005-05 No 03.01/02; second draft: May 2005, Kap. 4

1.7.4 Prestressed steel

DIN EN ISO 15630-3 Steel for the reinforcement and prestressing of concrete - Test

2020-02 methods - Part 3: Prestressing steel

(without clause 13)

Valid from: 29.08.2024 Date of issue: 30.10.2024

Page 12 of 46



BS 5896 High tensile steel wire and strand for the 2012-05 prestressing of concrete. Specification

NEN 3868 Voorspanstaal (Prestressing steel)

2001-12

NF A 05-302 Armatures de précontrainte - Essai de corrosion sous contrainte á

2014-12 l'eau distillée Spannbewehrung

(reinforcements - corrosion test using distilled water)

NF A 35-045-1 Produits en acier - Armatures de précontrainte - Partie 1:

2018-11 Prescriptiones generals

(steel products reinforcements - Part 1: general requirements)

Annex A, B and C

ASTM A1061/ Standard Test Methods for Testing Multi-Wire Steel Prestressing

A1061M Strand

2016

1.7.5 Steel fibres

EN 10218-1 Steel wire and wire products - General - Part 1: Test methods

2012-03

1.8 Cables

ETAG 013 Guideline for European Technical Approval of post tensioning kits for

2002-06 prestressing of structures

(here: Annex B)

EAD 160004-00-0301 Post-tensioning systems for prestressing of structures

here: Annex C - testing of PT systems



EAD 160027-00-0301 Special filling products for post-tensioning kits

here:

clause 2.2.27 grout general properties clause 2.2.28 grout: sedimentation property

Annex A - Sedimentation Test

TL Seile Verkehrsblatt

Nr. B 5229 edition 1994 Technical supplier specification for fully locked bridge rope, Ministry of Transport, Roadworks Dept., Transport Gazette Doc No B 5229

(according clause 3.1.5 + 5.4.1.3 and annex 2 + 9)

TL/TP-ING

part 4 section 4 TL/TP VVS

2017-02

Technical delivery conditions and technical test regulations for fully

locked coil ropes

(here: Chapter 5.4 and Annex C)

FIB CEB-FIB Acceptance of stay cable systems using prestressing steels

2019-03 (here: clause 6)

PTI DC.45.1-18

2018

PTI Recommendations for Stay Cable Design, Testing and Installation

#### 1.9 Wall and ceiling finishes and partitions

DIN EN 520 Gypsum plasterboards - Definitions, requirements and test methods

2009-12 (here: chapter 5)

DIN EN 13964 Suspended ceilings - Requirements and test methods

2014-08 (here: chapter 5.2, Annexes F, G, H)

DIN EN 14509 Self-supporting double skin metal faced insulating panels - Factory

2013-12 made products – Specifications

(here: Annexes A, B and D)

DIN EN 15283-1 Gypsum boards with fibrous reinforcement - Definitions,

2009-12 requirements and test methods - Part 1: Gypsum boards with mat

reinforcement (here: chapter 5)

DIN EN 15283-2 Gypsum boards with fibrous reinforcement - Definitions,

2009-12 requirements and test methods - Part 2: Gypsum fibre boards

(here: chapter 5)

Valid from: 29.08.2024 Date of issue: 30.10.2024

Page 14 of 46



ETAG 003 Guideline for European Technical Approval of internal partition kits

2013-07 for use as non-loadbearing walls

EAD 210005-00-0505 Internal partition kits for use as non-loadbearing walls

(here:

Clause 2.2.4 - 2.2.6,

Clause 2.2.8,

Clause 2.2.10 – 2.2.12,

Clause 2.2.15,

Annexes A, B, C and E)

EAD 040083-00-0404 External thermal insulation composite systems (ETICS) with renderings

(here:

Clause 2.2.5 - 2.2.13,

Clause 2.2.16,

Clause 2.2.21 (without 2.2.21.3),

Clause 2.2.23, Annexes G and F)

1.10 Piping anchorages

RAL-GZ 655 Piping anchorages – quality control

2008-04 (according clause B 3.2.4, C 3.4.4, D 3.3.3, E 3.3.4)

1.11 Construction waterproofing

DIN ISO 4593 Plastics - Film and sheeting - Determination of thickness by

2019-06 mechanical scanning

DIN ISO 23529 Rubber - General procedures for preparing and conditioning test

2020-10 pieces for physical test methods

DIN EN ISO 139 Textiles - Standard atmospheres for conditioning and testing

2011-10

DIN EN ISO 178 Plastics - Determination of flexural properties

2019-08

DIN EN ISO 527-1 Plastics - Determination of tensile properties - Part 1: General

2019-12 principles

Valid from: 29.08.2024 Date of issue: 30.10.2024

te of issue: 30.10.2024 Page 15 of 46

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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 sheets
DIN EN ISO 527-4 2022-03	Plastics - Determination of tensile properties - Part 4: Test conditions for isotropic and orthotropic fibre-reinforced plastic composites
DIN EN ISO 2062 2010-04	Textiles - Yarns from packages - Determination of single-end breaking force and elongation at break using constant rate of extension (CRE) tester
DIN EN ISO 4624 2016-08	Paints and varnishes - Pull-off test for adhesion
DIN EN ISO 4892-3 2016-10	Plastics - Methods of exposure to laboratory light sources - Part 3: Fluorescent UV lamps
DIN EN ISO 7390 2004-04	Building construction - Jointing products - Determination of resistance to flow of sealants
DIN EN ISO 8339 2005-09	Building construction - Sealants - Determination of tensile properties (Extension to break)
DIN EN ISO 8340 2005-09	Building construction - Sealants - Determination of tensile properties at maintained extension
DIN EN ISO 10563 2017-09	Buildings and civil engineering works - Sealants - Determination of change in mass and volume
DIN EN ISO 10590 2005-10	Building construction - Sealants - Determination of tensile properties of sealants at maintained extension after immersion in water
DIN EN 495-5 2013-08	Flexible sheets for waterproofing - Determination of foldability at low temperature - Part 5: Plastic and rubber sheets for roof waterproofing
DIN EN 1107-1 1999-10	Flexible sheets for waterproofing - Determination of dimensional stability - Part 1: Bitumen sheets for roof waterproofing



DIN EN 1107-2 2001-04	Flexible sheets for waterproofing - Determination of dimensional stability - Part 2: Plastic and rubber sheets for roof waterproofing
DIN EN 1108 1999-10	Flexible sheets for waterproofing - Bitumen sheets for roof waterproofing - Determination of form stability under cyclical temperature changes
DIN EN 1109 2013-07	Flexible sheets for waterproofing - Bitumen sheets for roof waterproofing - Determination of flexibility at low temperature
DIN EN 1110 2011-03	Flexible sheets for waterproofing - Bitumen sheets for roof waterproofing - Determination of flow resistance at elevated temperature
DIN EN 1296 2001-03	Flexible sheets for waterproofing - Bitumen, plastic and rubber sheets for roof waterprofing - Method for artificial ageing by long term exposure to elevated temperature
DIN EN 1297 2004-12	Flexible sheets for waterproofing - Bitumen, plastic and rubber sheets for roof waterproofing - Method of artificial ageing by long term exposure to the combination of UV radiation, elevated temperature and water
DIN EN 1548 2007-11	Flexible sheets for waterproofing - Plastic and rubber sheets for roof waterproofing - Method for exposure to bitumen
DIN EN 1847 2010-04	Flexible sheets for waterproofing - Plastics and rubber sheets for roof waterproofing - Methods for exposure to liquid chemicals, including water
DIN EN 1848-1 1999-12	Flexible sheets for waterproofing - Determination of length, width and straightness - Part 1: Bitumen sheets for roof waterproofing
DIN EN 1848-2 2001-09	Flexible sheets for waterproofing - Determination of length, width, straightness and flatness - Part 2: Plastic and rubber sheets for roof waterproofing
DIN EN 1849-1 2000-01	Flexible sheets for waterproofing - Determination of thickness and mass per unit area - Part 1: Bitumen sheets for roof waterproofing
DIN EN 1849-2 2019-09	Flexible sheets for waterproofing - Determination of thickness and mass per unit area - Part 2: Plastic and rubber sheets for roof
DIN EN 1850-1 1999-12	Flexible sheets for roofing - Determination of visible defects - Part 1: Bitumen sheets for roof waterproofing



DIN EN 1850-2 2001-09	Flexible sheets for waterproofing - Determination of visible defects - Part 2: Plastic and rubber sheets for roof waterproofing
DIN EN 1928 2000-07	Flexible sheets for waterproofing - Bitumen, plastic and rubber sheets for roof waterproofing - Determination of watertightness
DIN EN 12004-2 2017-05	Adhesives for tiles - Part 2: Test methods
DIN EN 12310-1 1999-11	Flexible sheets for waterproofing - Part 1: Bitumen sheets for roof waterproofing; determination of resistance to tearing (nail shank)
DIN EN 12310-2 2019-02	Flexible sheets for waterproofing - Determination of resistance to tearing - Part 2: Plastic and rubber sheets for roof waterproofing
DIN EN 12311-1 1999-11	Flexible sheets for waterproofing - Part 1: Bitumen sheets for roof waterproofing; Determination of tensile properties
DIN EN 12311-2 2013-11	Flexible sheets for waterproofing - Determination of tensile properties - Part 2: Plastic and rubber sheets for roof waterproofing
DIN EN 12316-1 1999-11	Flexible sheets for waterproofing - Part 1: Bitumen sheets for roof waterproofing; determination of peel resistance of joints
DIN EN 12316-2 2013-08	Flexible sheets for waterproofing - Determination of peel resistance of joints - Part 2: Plastic and rubber sheets for roof waterproofing
DIN EN 12317-1 1999-11	Flexible sheets for waterproofing - Part 1: Bitumen sheets for roof waterproofing; determination of shear resistance of joints
DIN EN 12317-2 2010-12	Flexible sheets for waterproofing - Determination of shear resistance of joints - Part 2: Plastic and rubber sheets for roof waterproofing
DIN EN 12691 2018-05	Flexible sheets for waterproofing - Bitumen, plastic and rubber sheets for roof waterproofing - Determination of resistance to impact
DIN EN 12730 2015-06	Flexible sheets for waterproofing - Bitumen, plastic and rubber sheets for roof waterproofing - Determination of resistance to static loading



DIN EN 13111 2010-11	Flexible sheets for waterproofing - Underlays for discontinuous roofing and walls - Determination of resistance to water penetration
DIN EN 13392 2001-12	Textiles - Monofilaments - Determination of linear density
DIN EN 13859-1 2014-07	Flexible sheets for waterproofing - Definitions and characteristics of underlays - Part 1: Underlays for discontinuous roofing
DIN EN 13859-2 2014-07	Flexible sheets for waterproofing - Definitions and characteristics of underlays - Part 2: Underlays for walls
DIN EN 14891 2017-05	Liquid applied water impermeable products for use beneath ceramic tiling bonded with adhesives - Requirements, test methods, assessment and verification of constancy of performance, classification and marking here: Annex 7 (A.7): Watertightness
DIN EN 15820 2011-06	Polymer modified bituminous thick coatings for waterproofing - Determination of watertightness
DIN EN 29073-3 1992-08	Textiles; test method for nonwovens; part 3: determination of tensile strength and elongation
DIN 53377 2021-11	Testing of plastic films - Determination of dimensional stability
DIN 53504 2017-03	Testing of rubber - Determination of tensile strength at break, tensile stress at yield, elongation at break and stress values in a tensile test
EAD 030350-00-0402	Liquid applied roof waterproofing kits (without: bitumen-based materials)
Richtlinie DVS 2226-1 2000-09	Testing of fused joints on liners of polymer materials - Testing procedure, requirements
Richtlinie DVS 2226-2 1997-07	Testing of fused joints on liners of polymer materials - Lap shear test
Richtlinie DVS 2226-3 1997-07	Test of fusions on PE liners - Peeling test



#### 1.12 Restoration materials

DIN EN ISO 3219 Plastics - Polymers/resins in the liquid state or as emulsions or

1994-10 dispersions - Determination of viscosity using a rotational viscometer

with defined shear rate (withdrawn standard)

DIN EN ISO 12572 Hygrothermal performance of building materials and products -

2017-05 Determination of water vapour transmission properties – Cup

method

DIN EN 1931 Flexible sheets for waterproofing - Bitumen, plastic and rubber sheets

2001-03 for roof waterproofing - Determination of water vapour transmission

properties

DIN EN 12086 Thermal insulating products for building applications - Determination

2013-06 of water vapour transmission properties

#### 1.13 Testing of inorganic construction materials

DIN EN 1744-1 Tests for chemical properties of aggregates - Part 1: Chemical analysis

2013-03 (only clause 8, 10, 11, 12 and 17)

DIN EN 13279-2 Gypsum binders and gypsum plasters - Part 2: Test methods

2014-03

#### 1.14 Testing of organic construction materials

DIN EN ISO 1133-1 Plastics - Determination of the melt mass-flow rate (MFR) and melt

2022-10 volume-flow rate (MVR) of thermoplastics - Part 1: Standard method

DIN EN ISO 1183-1 Plastics - Methods for determining the density of non-cellular

2019-09 plastics - Part 1: Immersion method, liquid pycnometer method and

titration method

DIN EN ISO 2811-1 Paints and varnishes - Determination of density - Part 1: Pycnometer

2023-04 method

DIN EN ISO 3251 Paints, varnishes and plastics - Determination of non-volatile-matter

2019-09 content

Valid from: 29.08.2024

Date of issue: 30.10.2024 Page 20 of 46



DIN EN ISO 6427 2014-08	Plastics - Determination of matter extractable by organic solvents (conventional methods)
DIN EN ISO 11357-1 2023-06	Plastics - Differential scanning calorimetry (DSC) - Part 1: General principles
DIN EN ISO 11357-3 2018-07	Plastics - Differential scanning calorimetry (DSC) - Part 3: Determination of temperature and enthalpy of melting and crystallization
DIN EN ISO 11357-6 2018-07	Plastics - Differential scanning calorimetry (DSC) - Part 6: Determination of oxidation induction time (isothermal OIT) and oxidation induction temperature (dynamic OIT)
DIN EN ISO 11358-1 2022-07	Plastics - Thermogravimetry (TG) of polymers - Part 1: General principles
DIN EN 1767 1999-09	Products and systems for the protection and repair of concrete structures - Test methods - Infrared analysis
DIN EN 12614 2005-01	Products and systems for the protection and repair of concrete structures - Test methods - Determination of glass transition temperatures of polymers

## 1.15 Testing of 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 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
DIN EN ISO 29469 2023-02	Thermal insulating products for building applications - Determination of compression behaviour
DIN EN ISO 29767 2019-11	Thermal insulating products for building applications - Determination of short-term water absorption by partial immersion

Valid from: 29.08.2024
Date of issue: 30.10.2024

Date of issue: 30.10.2024 Page 21 of 46



DIN EN ISO 29768 2022-12	Thermal insulating products for building applications - Determination of linear dimensions of test specimens
DIN EN 822 2013-05	Thermal insulating products for building applications - Determination of length and width (withdrawn standard)
DIN EN 823 2013-05	Thermal insulating products for building applications - Determination of thickness (withdrawn standard)
DIN EN 825 2013-05	Thermal insulating products for building applications - Determination of flatness (withdrawn standard)
DIN EN 826 2013-05	Thermal insulating products for building applications - Determination of compression behavior (withdrawn standard)
DIN EN 1602 2013-05	Thermal insulating products for building applications - Determination of the apparent density
DIN EN 1603 2013-05	Thermal insulating products for building applications - Determination of dimensional stability under constant normal laboratory conditions (23 $^{\circ}$ C/ 50 $^{\circ}$ relative humidity)
DIN EN 1609 2013-05	Thermal insulating products for building applications - Determination of short term water absorption by partial immersion (withdrawn standard)
DIN EN 12085 2013-06	Thermal insulating products for building applications - Determination of linear dimensions of test specimen (withdrawn standard)
DIN EN 12087 2013-06	Thermal insulating products for building applications - Determination of long term water absorption by immersion (withdrawn standard)
DIN EN 12667 2001-05	Thermal performance of building materials and products - Determination of thermal resistance by means of guarded hot plate

Valid from: 29.08.2024 Date of issue: 30.10.2024

and low thermal resistance

and heat flow meter methods - Dry and moist products with medium



DIN EN 12939 Thermal performance of building materials and products -

2001-02 Determination of thermal resistance by means of guarded hot plate

and heat flow meter methods - Thick products of high and medium

thermal resistance

#### 1.16 Mortar, plastering and floor

#### 1.16.1 Masonry mortar and plastering mortars

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
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
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



DIN EN 1015-12 2016-12	Methods of test for mortar for masonry - Part 12: Determination of adhesive strength of hardened rendering and plastering mortars on substrate
DIN EN 1015-18 2003-03	Methods of test for mortar for masonry - Part 18: Determination of water absorption coefficient due to capillary action of hardened mortar
DIN EN 1015-19 2005-01	Methods of test for mortar for masonry - Part 19: Determination of water vapour permeability of hardened rendering and plastering mortars
DIN EN 1052-1 1998-12	Methods of test for masonry - Part 1: Determination of compressive strength
DIN EN 1052-3 2007-06	Methods of test for masonry - Part 3: Determination of initial shear strength
DIN EN 1052-4 2000-09	Methods of test for masonry - Part 4: Determination of shear strength including damp proof course
DIN 18555-4 2019-04	Testing of mortars containing mineral binders - Part 4: Determination of linear and transverse strain and of deformation characteristics of hardened masonry mortars by the static pressure test
DIN 18555-6 1987-11	Testing of mortars containing mineral binders; determination of bond strength of hardened mortar
DIN 18555-9 2019-04	Testing of mortars containing mineral binders - Part 9: Determination of the compressive strength of hardened mortars in the bed joint

#### 1.16.2 Floor screeds

DIN EN 13892-1 2003-02	Methods of test for screed materials - Part 1: Sampling, making and curing specimens for test
DIN EN 13892-2 2003-02	Methods of test for screed materials - Part 2: Determination of flexural and compressive strength
DIN EN 13892-3 2015-03	Methods of test for screed materials - Part 3: Determination of wear resistance - Böhme
DIN EN 13892-8 2003-02	Methods of test for screed materials - Part 8: Determination of bond strength



DIN 18560-1 Floor screeds in building construction - Part 1: General requirements,

2021-02 testing and construction

(here: clause 6.4)

DIN 18560-2 Floor screeds in building construction - Part 2: Floor screeds and

2022-08 heating floor screeds on insulation layers,

(here: clause 6.2, 6.3.2, 6.3.3)

DIN 18560-3 Floor screeds in building construction - Part 3: Bonded screed,

2006-03 (here: clause 5, without 5.2.6 and 5.2.7)

DIN 18560-4 Floor screeds - Part 4: Screeds laid on separated layer,

2012-06 (here: clause 5, without 5.2.4 and 5.2.6)

DIN 18560-7 Floor screeds - Part 7: Heavy-duty screeds (industrial screeds)

2004-04 (here: clause 5, without 5.2.1)

#### 1.17 Fibre-cement products

DIN EN 492 Fibre-cement slates and fittings - Product specification and test

2018-07 methods

(here: clause 7.2 – 7.4)

DIN EN 12467 Fibre-cement flat sheets - Product specification and test methods

2018-07 (here: clause 7.2 – 7.4)



## 2 Department 2 - Fire Safety

# 2.1 Fire behaviour of building materials and building components

ISO 1928 2020-10	Solid mineral fuels - Determination of gross calorific value by the bomb calorimetric method and calculation of net calorific value
DIN EN ISO 1519 2011-04	Paints and varnishes - Bend test (cylindrical mandrel)
DIN EN ISO 3251 2019-09	Paints, varnishes and plastics - Determination of non-volatile-matter content
DIN EN ISO 4589- 1 2017-08	Plastics - Determination of burning behaviour by oxygen index - Part 1: Guidance
DIN EN ISO 4589- 2 2017-11	Plastics - Determination of burning behaviour by oxygen index - Part 2: Ambient-temperature test
DIN EN ISO 6270-2 2018-04	Paints and varnishes - Determination of resistance to humidity – Part 2: Condensation (in-cabinet exposure with heated water reservoir)
DIN EN 492 2018-07	Fibre-cement slates and fittings - Product specification and test methods (here: Clause 7.5 and Annex D)
DIN EN 520 2009-12	Gypsum plasterboards - Definitions, requirements and test methods (here: Chapter 10, Annexes B and C)
DIN EN 1363-1 2020-05	Fire resistance tests - Part 1: General Requirements
DIN EN 1363-2	Fire resistance tests - Part 2: Alternative and additional procedures
1999-10	The resistance tests Traff 2.7 Members and additional procedures
1999-10 DIN V ENV 1363-3 1999-09	Fire resistance tests - Part 3: Verification of furnace performance



DIN EN 1366-11 2022-04	Fire resistance tests for service installations - Part 11: Fire protective systems for cable systems and associated components
DIN EN 1366-12 2020-01	Fire resistance tests for service installations - Part 12: Non- mechanical fire barrier for ventilation ductwork
DIN EN 1366-13 2019-09	Fire resistance tests for service installations - Part 13: Chimneys
DIN EN 12467 2018-07	Fibre-cement flat sheets - Product specification and test methods here: Clause 7.5
DIN EN 13238 2010-06	Reaction to fire tests for building products - Conditioning procedures and general rules for selection of substrates
DIN EN 13381-9 2015-09	Test methods for determining the contribution to the fire resistance of structural members - Part 9: Applied fire protection systems to steel beams with web openings
DIN EN 13381-10 2020-08	Test methods for determining the contribution to the fire resistance of structural members - Part 10: Applied protection to solid steel bars in tension
DIN EN 13820 2003-12	Thermal insulating materials for building applications - Determination of organic content
DIN EN 14390 2007-04	Fire test - Large-scale room reference test for surface products
DIN EN 15254-2 2009-10	Extended application of results from fire resistance tests - Non-loadbearing walls - Part 2: Masonry and gypsum blocks
DIN EN 15254-4 2019-02	Extended application of results from fire resistance tests - Non-loadbearing walls - Part 4: Glazed constructions
DIN EN 15254-5 2018-06	Extended application of results from fire resistance tests - Non-loadbearing walls - Part 5: Metal sandwich panel construction



DIN EN 15254-6 2014-05	Extended application of results from fire resistance tests - Non-loadbearing walls - Part 6: Curtain walling
DIN EN 15254-7 2018-06	Extended application of results from fire resistance tests - Non-loadbearing ceilings - Part 7: Metal sandwich panel construction
DIN EN 15882-1 2018-01	Extended application of results from fire resistance tests for service installations - Part 1: Ducts (here: Clause 8)
DIN EN 15882-2 2015-06	Extended application of results from fire resistance tests for service installations - Part 2: Fire dampers (here: clause 5.2)
DIN EN 15882-3 2009-07	Extended applications of results from fire resistance tests for service installations - Part 3: Penetration seals
DIN EN 15882-4 2012-07	Extended application of results from fire resistance tests for service installations - Part 4: Linear joint seals
DIN EN 16733 2016-07	Reaction to fire tests for building products - Determination of a building product's propensity to undergo continuous smouldering
DIN EN 50399 (VDE 0482-399) 2017-02	Common test methods for cables under fire conditions - Heat release and smoke production measurement on cables during flame spread test - Test apparatus, procedures, results
DIN EN 60332-1-2 (VDE 0482-332-1-2) 2022-07	Tests on electric and optical fibre cables under fire conditions - Part 1-2: Test for vertical flame propagation for a single insulated wire or cable - Procedure for 1 kW pre-mixed flame
DIN 4102-1 1998-05	Fire behaviour of building materials and building components - Part 1: Building materials; concepts, requirements and tests
DIN 4102-2 1977-09	Fire Behaviour of Building Materials and Building Components; Building Components; Definitions, Requirements and Tests
DIN 4102-3 1977-09	Fire Behaviour of Building Materials and Building Components; Fire Walls and Non-load-bearing External Walls



DIN 4102-7 2018-11	Fire behaviour of building materials and building components - Part 7: Roofing; Requirements and testing
DIN 4102-8 2003-10	Fire behaviour of building materials and components - Part 8: Small scale test furnace
DIN 4102-9 1990-05	Fire behaviour of building materials and elements; seals for cable penetrations; concepts, requirements and testing
DIN 4102-11 1985-12	Fire behaviour of building materials and building components; pipe encasements, pipe bushings, service shafts and ducts, and barriers across inspection openings; terminology, requirements and testing
DIN 4102-12 1998-11	Fire behaviour of building materials and building components - Part 12: Circuit integrity maintenance of electric cable systems; requirements and testing
DIN 4102-13 1990-05	Fire behaviour of building materials and elements; fire resistant glazing; concepts, requirements and testing
DIN 4102-14 1990-05	Fire behaviour of building materials and elements; determination of the burning behaviour of floor covering systems using a radiant heat source
DIN 4102-16 2021-01	Fire behaviour of building materials and building components - Part 16: "Brandschacht" tests
DIN 4102-17 2017-12	Fire behaviour of building materials and building components – Part 17: Melting point of mineral wool insulating materials - Terms and definitions, requirements and test
DIN V 4102-21 2002-08	Fire behaviour of building materials and building components – Part 21: Assessment of the performance of fire resistant air ducts
DIN SPEC 4102-23 2018-07	Fire behaviour of building materials and building components - Part 23: Roofs - Application rules for test results for roofs tested to CEN/TS 1187, test method 1, and DIN 4102-7
DIN 50050-1 1986-04	Testing of materials; burning behaviour of materials; small burning cabinet



DIN 50051 1977-02	Testing of Materials; Burning Behaviour of Materials; Burner
DIN 50055 1989-03	Light measuring system for testing smoke development (here: Clause 4)
DIN 51900-1 2000-04 + Corrigendum 1 2004-02	Testing of solid and liquid fuels - Determination of gross calorific value by the bomb calorimeter and calculation of net calorific value - Part 1: Principles, apparatus, methods
DIN 51900-2 2003-05	Testing of solid and liquid fuels - Determination of the gross calorific value by the bomb calorimeter and calculation of the net calorific value - Part 2: Method using isoperibol ot static, jacket calorimeter
DIN 51900-3 2005-01	Testing of solid and liquid fuels - Determination of gross calorific value by the bomb calorimeter and calculation of net calorific value - Part 3: Method using adiabatic jacket
DIN 53438-2 1984-06	Testing of combustible materials; response to ignition by a small flame; edge ignition
DIN 53438-3 1984-06	Testing of combustible materials; response to ignition by a small flame; surface ignition
EAD 030350-00-0402	Liquid applied roof waterproofing kits here: clause 2.2.1 external fire performance clause 2.2.2 reaction to fire
EAD 030351-00-0402	Systems of mechanically fastened flexible roof waterproofing sheets here: clause 2.2.2.1 external fire performance (supersedes ETAG 006)
EAD 030352-00-0503	Liquid applied watertight covering kits for wet room floors and/or walls here: clause 2.2.1 reaction to fire



EAD 030436-00-0503 Watertight covering kits based on flexible sheets for wet room floors

and/or walls

here: clause 2.2.1 reaction to fire

EAD 030437-00-0503 Watertight covering kits based on inherently watertight boards for

wet room floors and/or walls here: clause 2.2.1 reaction to fire

EAD 040083-00-0404 External thermal insulation composite systems (ETICS) with

renderings

here:

clause 2.2.1 reaction to fire

clause 2.2.2 façade fire performance

clause 2.2.3 propensity to undergo continuous smouldering of ETICS

Annexes A – C

EAD 130367-00-0304 Composite wood-based beams and columns

here:

clause 2.2.16 reaction to fire clause 2.2.17 resistance to fire

EAD 210005-00-0505 Internal partition kits for use as non-loadbearing walls

here:

clause 2.2.1 reaction to fire clause 2.2.2 resistance to fire

Annex C

(supersedes ETAG 003)

EAD 220089-00-0401 Self-supporting translucent roof kits with covering made of plastic

sheets here:

clause 2.2.1 reaction to fire

clause 2.2.2 external fire performance of roofs

(supersedes ETAG 010)

EAD 340006-00-0506 Prefabricated stair kits

here: clause 2.2.9 reaction to fire

EAD 340308-00-0203 Timber building kits

here:

clause 2.2.6 reaction to fire of components

clause 2.2.7 resistance to fire

clause 2.2.8 external fire performance of roofs



EAD 340309-00-0305 Non load-bearing permanent shuttering kits/systems based on

hollow blocks or panels of insulating materials and sometimes

concrete here:

clause 2.2.4 reaction to fire

clause 2.2.5 influence of the shuttering kit on the fire resistance

EAD 350140-00-1106 Renderings and rendering kits intended for fire resisting applications

here:

clause 2.2.1 reaction to fire clause 2.2.2 resistance to fire

EAD 350141-00-1106 Fire stopping and fire sealing products - Linear joint and gap seals

here:

clause 2.2.1 reaction to fire clause 2.2.2 resistance to fire

EAD 350142-00-1106 Fire protective board, slab and mat products and kits

here:

clauses 2.2.1.1/ 2.2.2.1/ 2.2.3.1/ 2.2.4.1/ 2.2.5.1/ 2.2.6.1/ 2.2.7.1

reaction to fire

clause 2.2.1.2 and 2.2.2.2 resistance to fire

EAD 350402-00-1106 Reactive coatings for fire protection of steel elements

here:

clause 2.2.1 reaction to fire clause 2.2.2 resistance to fire

EAD 350454-00-1104 Fire stopping and fire sealing products - Penetration seals

here:

clause 2.2.1 reaction to fire clause 2.2.2 resistance to fire

EAD 350865-00-1106 Fire retardant products

here:

clause 2.2.1 reaction to fire

clause 2.2.2 durability (of fire performance)

Annex A + B



ETAG 012 merged with ETAG 007 Guideline for European Technical Approval of log building kits

(here: fire behaviour according to clause 5.2.1.;

fire resistance according to clause 5.2.2;

external fire performance according to clause 5.2.3)

NMP 852 Nr. 11b-83

1988-02

Test method for the determination of exhaust gas development of

construction materials - decomposition under carbonisation

conditions with air supply (DIN 4102-1, Annex A)

NMP 852 Nr. 12c-83

1983-09

Test method for the determination of smoke development of construction materials - combustion under flame conditions

(DIN 4102-1, Annex B)

ZTV-LSW 06 2006-11 Additional technical contractual requirements and guidelines for the

noise protective walls on the roads

in conjunction with:

EN 13501-1 2018 Fire classification of construction

products and building elements - Part 1: Classification using data from reaction to

fire tests

EN 13501-2 2016 Fire classification of construction products and building elements - Part 2: Classification using data from fire

resistance tests, excluding ventilation

services

EN 13501-3 2005 Fire classification of construction products and building elements - Part 3: Classification using data from fire

+A1 2009

resistance tests on products and elements used in building service installations: fire

resisting ducts and fire dampers

EN 13501-5

2016

Fire classification of construction products and building elements - Part 5:

Classification using data from external

fire exposure to roofs tests



#### 2.2 Fire barriers and smoke control doors

**DIN EN 12604** Industrial, commercial and garage doors and gates - Mechanical

2017-12 aspects - Requirements and test methods

**DIN EN 12605** Industrial, commercial and garage doors and gates - Mechanical

2000-08 aspects - Test methods

(withdrawn standard)

Extended application of test results for fire resistance and/or smoke DIN EN 15269-11

> control for door, shutter and openable window assemblies, including their elements of building hardware - Part 11: Fire

resistance for operable fabric curtains

(here: calculation according to Annexes B and C)

DIN 4102-5 Fire Behaviour of Building Materials and Building Components; Fire 1977-09

Barriers, Barriers in Lift Wells and Glazings Resistant against Fire;

Definitions, Requirements and Tests

DIN 4102-18 Fire behaviour of building materials and components; fire barriers, 1991-03

verification of automatic closure (continuous performance test)

DIN 18095-2 Doors - Smoke control doors - type testing for durability and

1991-03 leakage

2019-09

EAD 350022-01-1107 Kit for closure system for conveyor systems

(here: Clause 2.2.1, 2.2.2, 2.2.3, 3.3 and Annexes A and B)

in conjunction with:

EN 13501-2 Fire classification of construction 2016 products and building elements - Part 2:

> Classification using data from fire resistance tests, excluding ventilation

services



## 2.2.1 Windows, doors, gates, curtain walling

DIN EN 948 Hinged or pivoted doors - Determination of the resistance to static

1999-11 torsion

DIN EN 1191 Windows and doors - Resistance to repeated opening and closing -

2013-04 Test method

DIN EN 12046-1 Operating forces - Test method - Part 1: Windows

2020-11

DIN EN 12046-2 Operating forces - Test method - Part 2: Doors

2000-12

### 2.3 Smoke extraction

DIN EN 1751 Ventilation for buildings - Air terminal devices - Aerodynamic

2014-06 testing of damper and valves

DIN EN 1858 Chimneys - Components - Concrete flue blocks

2011-09 (here: clause 8 and annex A)

DIN EN 12101-1 Smoke and heat control systems - Part 1: Specification for smoke

2006-06 barriers

DIN EN 12101-2 Smoke and heat control systems - Part 2: Specification for natural

2017-07 smoke and heat exhaust ventilators

DIN EN 12101-3 Smoke and heat control systems - Part 3: Specification for powered

2015-12 smoke and heat control ventilators (Fans)

DIN EN 12101-6 Smoke and heat control systems - Part 6: Specification for pressure

2005-09 differential systems, Kits

DIN EN 12446 Chimneys - Components - Concrete outer wall elements

2011-09 (here: clause 8 and annex A)

DIN 18232-4 Smoke and heat control systems - Part 4: Heat exhaust

2003-04 systems (WA); Test methods



DIN V 18232-6 Smoke and heat control installations - Powered smoke exhaust 1997-10 systems - Part 6: Requirements for components and suitability

testing (withdrawn standard)

in conjunction with:

EN 13501-4 Fire classification of construction 2016 products and building elements -

Part 4: Classification using data from fire resistance tests on components of

smoke control systems

# 2.4 Datarooms, -cabinets, container and Safety storage cabinets

DIN EN 1047-1 Secure storage units - Classification and methods of test for

2019-12 resistance to fire - Part 1: Data cabinets and diskette inserts

DIN EN 1047-2 Secure storage units - Classification and methods of test for

2019-06 resistance to fire - Part 2: Data rooms and data container

DIN EN 14470-1 Fire safety storage cabinets - Part 1: Safety storage cabinets for

2004-07 flammable liquids

DIN EN 14470-2 Fire safety storage cabinets - Part 2: Safety cabinets for pressurised

2006-11 gas cylinders

DIN EN 15659 Secure storage units - Classification and methods of test for

2020-02 resistance to fire - Light fire storage units

## 2.5 Firetests in Shipbuilding

IMO 2010 FTP Code, Non-combustibility Test

Resolution MSC.307(88) 2010-12, Annex 1, Part 1

IMO 2010 FTP Code, Test for "A", "B" and "F" class divisions

Resolution MSC.307(88) (here: only vertical tests)

2010-12, Annex 1, Part 3



Testing of construction products (system of assessment and verification of constancy of performance 3) in accordance with the Construction Products Regulation (EU)

No 305/2011 to defined harmonised conditions for the marketing of construction products (Construction Products Regulation - CPR)

	EN 520:2004+A1:2009 Gypsum plasterboards - Definitions, requirements and test methods EN 12859:2011
	EN 12859:2011
	Gypsum blocks - Definitions, requirements and test methods
3	EN 12860:2001+AC:2002 Gypsum based adhesives for gypsum blocks - Definitions, requirements and test methods
	EN 13963:2005+AC:2006  Jointing materials for gypsum boards - Definitions, requirements and test methods
	EN 15283-1:2008+A1:2009 Gypsum boards with fibrous reinforcement - Definitions, requirements and test methods - Part 1: Gypsum boards with mat reinforcement
	EN 15283-2: 2008+A1:2009 Gypsum boards with fibrous reinforcement - Definitions, requirements and test methods - Part 2: Gypsum fibre boards
3	EN 13830:2003 Curtain walling - Product standard
3	EN 13986:2004+A1:2015 Wood-based panels for use in construction - Characteristics, evaluation of conformity and marking
3	EN 1433:2002+A1:2005  Drainage channels for vehicular and pedestrian areas - Classification, design and testing requirements, marking and evaluation of conformity
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 -
	3 3



Decision / resolution of the Commission	System <sup>1)</sup>	Technical specification
1997/740/EC 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
<b>1997/808/EC</b> Floorings	3	EN 13813:2002 Screed material and floor screeds - Screed materials - 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 14351-1:2006+A2:2016 Windows and doors — Product standard, performance characteristics — Part 1: Windows and external pedestrian doorsets
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
		EN 13964:2014 Suspended ceilings - Requirements and test methods EN 14509:2013 Self-supporting double skin metal faced insulating panels - Factory made products
		EN 14716:2004 Stretched ceilings - Requirements and tests methods EN 15102:2007+A1:2011
1998/599/EC 2001/596/EC Liquid applied roof waterproofing kits	3	Decorative wall coverings - Roll and panel form  EAD 030350-00-0402  Liquid applied roof waterproofing kits
1999/90/EC Membranes	3	EN 13707:2004+A2:2009 Flexible sheets for waterproofing - Reinforced bitumen sheets for roof waterproofing - Definitions and characteristics EN 13859-1:2010
		Flexible sheets for waterproofing - Definitions and characteristics of underlays - Part 1: Underlays for discontinuous roofing
		EN 13859-2:2010  Flexible sheets for waterproofing - Definitions and characteristics of underlays - Part 2: Underlays for walls



Decision / resolution of the Commission	System <sup>1)</sup>	Technical specification
1999/90/EC Membranes	3	EN 13956:2012 Flexible sheets for waterproofing - Plastic and rubber sheets for roof waterproofing - Definitions and characteristics EN 13967:2012 Flexible sheets for waterproofing - Plastic and rubber damp proof sheets including plastic and rubber basement tanking sheet - Definitions and characteristics EN 13969:2004+A1:2006 Flexible sheets for waterproofing - Bitumen damp proof sheets including bitumen basement tanking sheets - Definitions and characteristics EN 13970:2004+A1:2006 Flexible sheets for waterproofing - Bitumen water vapour control layers - Definitions and characteristics EN 13984:2013 Flexible sheets for waterproofing - Plastic and rubber vapour control layers - Definitions and characteristics EN 14891:2012+AC:2012 Liquid-applied water impermeable products for use beneath ceramic tiling bonded with adhesives - Requirements, test methods, evaluation of conformity, classification and designation EN 14909:2012 Flexible sheets for waterproofing - Plastic and rubber damp proof courses - Definitions and characteristics
		EN 14967:2006 Flexible sheets for waterproofing - Bitumen damp proof courses - Definitions and characteristics EN 15814:2011 + A2:2014 Polymer modified bituminous thick coatings for waterproofing - Definitions and requirements
1999/91/EC Thermal insulation products	3	EN 13162:2012+A1:2015 Thermal insulation products for buildings - Factory made mineral wool (MW) products
		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

Valid from: 29.08.2024 Date of issue: 30.10.2024

Page 39 of 46



Decision / resolution of the Commission	System <sup>1)</sup>	Technical specification
1999/91/EC Thermal insulation products	3	EN 13165:2012+A2:2016 Thermal insulation products for buildings - Factory made rigid polyurethane foam (PU) products - Specification
		EN 13166:2012+A2:2016 Thermal insulation products for buildings - Factory made phenolic foam (PF) products - Specification
		EN 13167:2012+A1:2015 Thermal insulation products for buildings - Factory made cellular glass (CG) products - Specification
		EN 13168:2012+A1:2015 Thermal insulation products for buildings - Factory made wood wool (WW) products - Specification
		EN 13169:2012+A1:2015 Thermal insulation products for buildings - Factory made expanded perlite board (EPB) products - Specification
		EN 13170:2012+A1:2015 Thermal insulation products for buildings - Factory made products of expanded cork (ICB) - Specification
		EN 13171:2012+A1:2015 Thermal insulation products for buildings - Factory made wood fibre (WF) products - Specification
1999/93/EC Doors, windows, shutters, blinds, gates and related building hardware  1999/469/EC Products related to concrete, mortar and grout	3	EN 13241:2003+A2:2016 Industrial, commercial, garage doors and gates — Product standard, performance characteristics
		EN 14351-1:2006+A2:2016 Windows and doors — Product standard, performance characteristics — Part 1: Windows and external pedestrian doorsets
		EN 14351-2:2018 <sup>2)</sup> Windows and doors - Product standard, performance characteristics - Part 2: Internal pedestrian doorsets
	3	EN 14889-1:2006  Fibres for concrete - Part 1: Steel fibres - Definitions, specifications and conformity
		EN 14889-2:2006  Fibres for concrete - Part 2: Polymer fibres - Definitions, specifications and conformity



Decision / resolution of the Commission	System <sup>1)</sup>	Technical specification
1999/469/EC Products related to concrete, mortar and grout	3	Products and systems for the protection and repair of concrete structures - Definitions, requirements, quality control and evaluation of conformity - Part 2: Surface protection systems for concrete  EN 1504-3:2005  Products and systems for the protection and repair of concrete structures - Definitions, requirements, quality control and evaluation of conformity - Part 3: Structural and non-structural repair  EN 1504-4:2004  Products and systems for the protection and repair of concrete structures - Definitions, requirements, quality control and evaluation of conformity - Part 4: Structural bonding  EN 1504-6:2006  Products and systems for the protection and repair of concrete structures - Definitions, requirements, quality control and evaluation of conformity - Part 6: Anchoring
		of reinforcing steel bar
1999/470/EC Construction adhesives	3	EN 12004:2007+A1:2012  Adhesives for tiles - Requirements, evaluation of conformity, classification and designation
		EN 12004-1:2017 <sup>2)</sup> Adhesives for ceramic tiles – Part 1: Requirements, assessment and verification of constancy of performance, classification and marking

<sup>1)</sup> System of assessment and verification of consistency 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 Deutsche Akkreditierungsstelle GmbH (German Accreditation Body), the testing laboratory body is permitted to use new revisions of harmonized technical standards.

<sup>2)</sup> Harmonization in preparation (planned system: 3)



Tests of reaction to fire, resistance to fire and of the external fire performance, for which the reference to a relevant harmonised technical specification is not required (point 3. Annex V, (EU) No 305/2011)

### 4.1 Reaction to fire

EN ISO 1182 Reaction to fire tests for products - Non-combustibility test

2020

EN ISO 1716 Reaction to fire tests for products - Determination of the gross heat

2018 of combustion (calorific value)

EN ISO 9239-1 Reaction to fire tests for floorings - Part 1: Determination of the

2010 burning behaviour using a radiant heat source

EN ISO 11925-2 Reaction to fire tests - Ignitability of products subjected to direct

2020 impingement of flame - Part 2: Single-flame source test

EN 13823 Reaction to fire tests for building products - Building products

2020 excluding floorings exposed to the thermal attack by a single burning

item

in conjunction with:

EN 13501-1 Fire classification of construction products and building elements - Part 1: Classification using

data from reaction to fire tests

EN 13501-6 Fire classification of construction products and

2018 building elements - Part 6: Classification using

data from reaction to fire tests on power, control and communication cables

4.2 Resistance to fire

EN 1364-1 Fire resistance tests for non-loadbearing elements - Part 1: Walls

2015

EN 1364-2 Fire resistance tests on non-loadbearing elements - Part 2: Ceilings

2018

Valid from: 29.08.2024 Date of issue: 30.10.2024

Page 42 of 46



EN 1364-3 2014	Fire resistance tests for non-loadbearing elements - Part 3: Curtain walling - Full configuration (complete assembly)
EN 1364-4 2014	Fire resistance tests for non-loadbearing elements - Part 4: Curtain walling - Part configuration
EN 1365-2 2014	Fire resistance tests for loadbearing elements - Part 2: Floors and roofs
EN 1365-3 1999	Fire resistance tests for loadbearing elements - Part 3: Beams
EN 1365-4 1999	Fire resistance tests on loadbearing elements - Part 4: Columns
EN 1366-1 2014+A1:2020	Fire resistance tests for service installations - Part 1: Ventilation ducts
EN 1366-2 2015	Fire resistance tests for service installations - Part 2: Fire dampers
EN 1366-3 2021	Fire resistance tests for service installations - Part 3: Penetration seals
EN 1366-4 2021	Fire resistance tests for service installations - Part 4: Linear joint seals
EN 1366-5 2021	Fire resistance tests for service installations - Part 5: Service ducts and shafts
EN 1366-6 2004	Fire resistance tests for service installations - Part 6: Raised access and hollow core floors
EN 1366-7 2004	Fire resistance tests for service installations - Part 7: Conveyor systems and their closures
EN 1366-8 2004	Fire resistance tests for service installations - Part 8: Smoke extraction ducts
EN 1366-9 2008	Fire resistance tests for service installations - Part 9: Single compartment smoke extraction ducts
EN 1366-10 2022	Fire resistance tests for service installations - Part 10: Smoke control dampers



EN 1634-1 2014+A1:2018	Fire resistance and smoke control tests for door and shutter assemblies, openable windows and elements of building hardware - Part 1: Fire resistance test for door and shutter assemblies and openable windows
EN 1634-2 2008	Fire resistance and smoke control tests for door, shutter and openable window assemblies and elements of building hardware - Part 2: Fire resistance characterisation test for elements of building hardware
EN 1634-3 2004 Corrigenda 2009	Fire resistance and smoke control tests for door and shutter assemblies, openable windows and elements of building hardware - Part 3: Smoke control test for door and shutter assemblies
EN 13381-1 2020	Test methods for determining the contribution to the fire resistance of structural members - Part 1: Horizontal protective membranes
EN 13381-2 2014	Test methods for determining the contribution to the fire resistance of structural members - Part 2: Vertical protective membranes
EN 13381-3 2015	Test methods for determining the contribution to the fire resistance of structural members - Part 3: Applied protection to concrete members
EN 13381-4 2013	Test methods for determining the contribution to the fire resistance of structural members - Part 4: Applied passive protection to steel members
EN 13381-5 2014	Test methods for determining the contribution to the fire resistance of structural members - Part 5: Applied protection to concrete/profiled sheet steel composite member
EN 13381-6 2012	Test methods for determining the contribution to the fire resistance of structural members - Part 6: Applied protection to concrete filled hollow steel columns
EN 13381-7 2019	Test methods for determining the contribution to the fire resistance of structural members - Part 7: Applied protection to timber members



EN 13381-8 2013 Test methods for determining the contribution to the fire resistance of structural members - Part 8: Applied reactive protection to steel members

in conjunction with:

EN 13501-2 Fire classification of construction products and building elements - Part 2: Classification using

data from fire resistance tests, excluding

ventilation services

EN 13501-3 Fire classification of construction products and 2005 building elements - Part 3: Classification using 4A1 data from fire resistance tests on products and elements used in building service installations:

fire resisting ducts and fire dampers

EN 13501-4 Fire classification of construction products and building elements - Part 4: Classification using

building elements - Part 4: Classification using data from fire resistance tests on components of

smoke control systems

## 4.3 External fire performance

CEN/TS 1187 Test methods for external fire exposure to roofs;

2012 here: Test Method 1

in conjunction with:

EN 13501-5 Fire classification of construction products and 2016 building elements - Part 5: Classification using

data from external fire exposure to roofs tests

The requirements for a testing laboratory are fulfilled according to article 43 of the Construction Products Regulation.



### **Abbreviations used**

ASTM American Society for Testing and Materials

BS British Standard

CEB Comité Européen du Béton

CEN Comité Européen de Normalisation - European Committee for Standardisation

CUAP Common Understanding of Assessment Procedure

DIBt Deutsches Institut für Bautechnik

DIN Deutsches Institut für Normung e.V. – German institute for standardization

DVS Deutscher Verband für Schweißen und verwandte Verfahren e.V.

EAD European Assessment Document

EC European Commission
EN European Standard

ETAG European Technical Approval Guidelines
FIB Fédération internationale du béton

FIP Fédération Internationale de la Précontrainte IEC International Electrotechnical Commission

IMO FTP International Maritime Organization – Fire Test Procedures

ISO International Organization for Standardization

NEN Nederlands Normalisatie-Instituut

NF Norme Française
NMP Normenprüfausschuss

ÖBV Österreichische Bautechnik Vereinigung

PA Internal test procedure

PTI DC Post-Tensioning Institute Document

RAL Reichsausschuss für Lieferbedingungen und Gütesicherung beim Deutschen

Normenausschuss

RILEM Réunion Internationale des Laboratoires d'Essais et de Recherches sur les Matériaux

et les Constructions

SPEC DIN Specification

TL/TP-ING Technische Lieferbedingungen und Technische Prüfvorschriften für Ingenieurbauten

TS Technichal Specification VVS vollverschlossene Seile