

Accreditation



The Deutsche Akkreditierungsstelle attests with this **Accreditation Certificate** that
Fraunhofer-Gesellschaft zur Förderung der angewandten Forschung e.V.
with its testing laboratory

**Fraunhofer-Institut für Holzforschung
Wilhelm-Klauditz-Institut, Qualitätsprüfung und -bewertung
Riedenkamp 3, 38108 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 confirm generally with the principles of DIN EN ISO 9001.

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

This accreditation certificate only applies in connection with the notices of 29.06.2023 with accreditation number D-PL-11140-14.
It consists of this cover sheet, the reverse side of the cover sheet and the following annex with a total of 11 pages.

Registration number of the accreditation certificate: **D-PL-11140-14-00**

Berlin, 29.06.2023

Dipl.-Ing. Evelyn Körner
Head of Technical Unit

Translation issued:
29.06.2023



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.

See notes overleaf

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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-11140-14-00 according to DIN EN ISO/IEC 17025:2018

Valid from: 29.06.2023

Date of issue: 29.06.2023

Holder of accreditation certificate:

Fraunhofer Gesellschaft zur Förderung der angewandten Forschung e. V.

with its testing laboratory

**Fraunhofer-Institut für Holzforschung
Wilhelm-Klauditz-Institut, Qualitätsprüfung und -bewertung
Riedenkamp 3, 38108 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 confirm generally with the principles of DIN EN ISO 9001.

Chemical testing of wood and wood-based panels; Testing of wood-based panels for the assessment and verification of formaldehyde emission requirements; Mechanical testing of building materials, construction products (wood-based panels, floor coverings, furniture) and their resources (adhesives);

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

This certificate annex is only valid together with the written accreditation certificate and reflects the status as indicated by the date of issue. The current status of any given scope of accreditation can be found in the directory of accredited bodies maintained by Deutsche Akkreditierungsstelle GmbH at <https://www.dakks.de>.

Abbreviations used: see last page

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Testing of emissions of dangerous substances of construction products where reference to relevant harmonised technical specifications 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 standards or equivalent testing methods within the flexible scope of accreditation.

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1 Chemical testing of wood and wood-based panels

DIN ISO 16000-3 2013-01	Indoor air - Part 3: Determination of formaldehyde and other carbonyl compounds in indoor air and test chamber air - Active sampling method
DIN EN ISO 12460-3 2020-10	Wood-based panels – Determination of formaldehyde release – Part 3: Gas analysis method
DIN EN ISO 12460-4 2016-09	Wood-based panels – Determination of formaldehyde release – Part 4: Desiccator method
DIN EN ISO 12460-5 2016-05	Wood-based panels – Determination of formaldehyde release – Part 5: Extraction method
DIN EN 120 1992-08	Wood-based panels – Determination of formaldehyde content – Extraction method called perforator method <i>(Standard withdrawn, replaced by DIN EN ISO 12460-5:2016-05)</i>
DIN EN 717-1 2005-01	Wood-based panels – Determination of formaldehyde release – Part 1: Formaldehyde emission by the chamber method
DIN EN 717-2 1995-01	Wood-based panels – Determination of formaldehyde release – Part 2: Formaldehyde release by the gas analysis method <i>(Standard withdrawn, replaced by DIN EN ISO 12460-3:2016-03)</i>
DIN EN 717-3 1996-05	Wood-based panels – Determination of formaldehyde release – Part 3: Formaldehyde release by the flask method
VDI Guideline 3484 Sheet 2 2001-11	Measurement of gaseous emissions – Measurement of indoor air pollution – Determination of formaldehyde concentration by the acetylacetone method
JIS A 1460 2001-03	Building boards – Determination of formaldehyde emission – Desiccator method
JIS A 1901 2009-04	Determination of the emission of volatile organic compounds and aldehydes for building products – Small chamber method
PA-C-15 2006-02	Determination of formaldehyde concentration in indoor air by the acetylacetone method

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- 2 Testing of wood-based panels for the assessment and verification of formaldehyde emission requirements in accordance with**
- US Environmental Protection Agency (EPA):
Toxic Substances Control Act (TSCA) – TSCA Title VI – Final rule 40 CFR Part 770 – Formaldehyde Standards for Composite Wood Products
- California Air Resources Board (CARB):
California Code of Regulations Title 17 § 93120-93120.12 – Airborne Toxic Control Measure to Reduce Formaldehyde Emissions from Composite Wood Products

DIN EN ISO 12460-3 2020-10	Wood-based panels – Determination of formaldehyde release – Part 3: Gas analysis method
DIN EN ISO 12460-5 2016-05	Wood-based panels – Determination of formaldehyde release – Part 5: Extraction method (called perforator method)
ASTM E 1333-14 2014	Standard Test Method for Determining Formaldehyde Concentrations in Air and Emission Rates from Wood Products Using a Large Chamber
ASTM D 5582-14 2014	Standard Test Method for Determining Formaldehyde Levels from Wood products using a Desiccator
ASTM D 6007-14 2014	Standard Test Method for Determining Formaldehyde Concentrations in Air from Wood Products Using a Small-Scale Chamber
JIS A 1460 2015-01	Building boards – Determination of formaldehyde emission – Desiccator method

^{#)} Confirmation of competence outside the scope of Regulation (EC) 765/2008

3 Mechanical testing of building materials, construction products (wood-based panels, floor coverings, furniture) and their resources (adhesives)

3.1 Wood-based panels and boards

ISO 16979 2003-05	Wood-based panels – Determination of moisture content
DIN EN 300 2006-09	Oriented Strand Boards (OSB) – Definitions, classification and specifications <i>here: Annex A: EN 1087-1:1995 Modified procedure</i>

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DIN EN 310 1993-08	Wood-based panels – Determination of modulus of elasticity in bending and of bending strength
DIN EN 311 2002-08	Wood-based panels – Surface soundness – Test method
DIN EN 314-1 2005-03	Plywood – Bonding quality. Part 1: Test method
DIN EN 317 1993-08	Particleboards and fibreboards – Determination of swelling in thickness after immersion in water
DIN EN 318 2002-06	Wood-based panels – Determination of dimensional changes associated with changes in relative humidity
DIN EN 319 1993-08	Particleboards and fibreboards – Determination of tensile strength perpendicular to the plane of the board
DIN EN 320 2011-07	Particleboards and fibreboards – Determination of resistance to axial withdrawal of screws
DIN EN 321 2002-03	Wood-based panels – Determination of moisture resistance under cyclic test conditions
DIN EN 322 1993-08	Wood-based panels – Determination of moisture content
DIN EN 323 1993-08	Wood-based panels – Determination of density
DIN EN 324-1 1993-08	Wood-based panels – Determination of dimensions of boards – Part 1: Determination of thickness, width and length
DIN EN 324-2 1993-08	Wood-based panels – Determination of dimensions of boards – Part 2: Determination of squareness and edge straightness
DIN EN 325 2012-06	Wood-based panels – Determination of dimensions of test pieces
DIN EN 326-1 1994-08	Wood-based panels – Sampling, cutting and inspection – Part 1: Sampling and cutting of test pieces and expression of test results
DIN EN 789 2005-01	Timber structures - Test methods - Determination of mechanical properties of wood based panels Test Methods 7, 8, 9, 10, 11

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DIN EN 1058 2010-04	Wood-based panels – Determination of characteristic values of mechanical properties and density
DIN EN 1156 2013-10	Wood-based panels – Determination of duration of load and creep factors
DIN EN 13879 2002-09	Wood-based panels - Determination of edgewise bending properties
DIN 52189-1 1981-12	Testing of wood – Impact bending test – Determination of impact bending strength

3.2 Wall and ceiling cladding made of wood, fibres, plaster

DIN EN 382-1 1993-08	Fibreboards – Determination of surface absorption – Part 1: Test method for dry process fibreboards
DIN EN 382-2 1994-02	Fibreboards – Determination of surface absorption – Part 2: Test method for hardboards
DIN EN 438-2 2016-06	High-pressure decorative laminates (HPL) – Sheets based on thermosetting resins (usually called laminates) – Part 2: Determination of properties <i>(Standard withdrawn)</i>
DIN EN 438-7 2005-04	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 <i>here: Annex A: Other European Standards for HPL products</i>
DIN EN 622-3 2004-07	Fibreboards – Specifications – Part 3: Requirements for medium boards <i>here:</i> Annex B: Cooking test according to EN 1087-1:1995 - Modified procedure Annex C: Determination of the flexural strength after a boil test according to EN 1087-1:1995 - Modified method
DIN EN 1087-1 1995-04	Particleboards – Determination of moisture resistance – Part 1: Boil test

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DIN EN 1128 1995-11	Cement-bounded particleboards – Determination of hard body impact resistance
DIN EN 1328 1996-09	Cement bonded particleboards – Determination of frost resistance

3.3 Timber structures and floor coverings

DIN EN 383 2007-03	Timber structures – Test methods – Determination of embedment strength and foundation values for dowel type fasteners
DIN EN 408 2012-10	Timber structures – Structural timber and glued laminated timber – Determination of some physical properties <i>here except: Section 11 Determination of the shear modulus</i>
DIN EN 14080 2013-09	Timber structures – Glued laminated timber and glued solid timber – Requirements <i>here: Annexes B.2, B.3, C and D</i>
DIN EN 14374 2005-02	Timber structures – Structural laminated veneer lumber – Requirements <i>here: Annex B: Procedure for testing the quality of the bond</i>
DIN EN 1534 2020-03	Wood flooring and parquet - Determination of resistance to indentation - Test method

3.4 Thermal insulating products

DIN EN 826 2013-05	Thermal insulating products for building applications – Determination of compression behaviour
DIN EN 12086 2013-06	Thermal insulating products for building applications – Determination of water vapour transmission properties
DIN EN ISO 12572 2017-05	Hygrothermal performance of building materials and products – Determination of water vapour transmission properties

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3.5 Adhesives

DIN EN 204 2016-11	Classification of thermoplastic wood adhesives for non-structural applications Section 5 – Test methods
DIN EN 205 2016-12	Adhesives – Wood adhesives for non-structural applications – Determination of tensile shear strength of lap joints
DIN EN 302-1 2013-06	Adhesives for load-bearing timber structures – Test methods – Part 1: Determination of longitudinal tensile shear strength
DIN EN 302-2 2017-11	Adhesives for load-bearing timber structures - Test methods - Part 2: Determination of resistance to delamination
DIN EN 302-3 2017-11	Adhesives for load-bearing timber structures - Test methods - Part 3: Determination of the effect of acid damage to wood fibres by temperature and humidity cycling on the transverse tensile strength
DIN EN 302-4 2013-06	Adhesives for load-bearing timber structures – Test methods – Part 4: Determination of the effects of wood shrinkage on the shear strength
DIN EN 302-5 2013-06	Adhesives for load-bearing timber structures – Test methods – Part 5: Determination of the minimum pressing time under referenced conditions
DIN EN 302-6 2013-06	Adhesives for load-bearing timber structures – Test methods – Part 6: Determination of maximum assembly time under referenced conditions
DIN EN 302-7 2013-06	Adhesives for load-bearing timber structures – Test methods – Part 7: Determination of the working life under referenced conditions
DIN EN 302-8 2017-05	Adhesives for load-bearing timber structures – Test methods – Part 8: Static load test of multiple bond line specimens in compression shear
DIN EN 1245 2011-07	Adhesives – Determination of pH
DIN EN 12092 2002-02	Adhesives – Determination of viscosity

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DIN EN 14293 2006-10	Adhesives – Adhesives for bonding parquet to subfloor – Test methods and minimum requirements Sections 4.2, 4.3, 4.4, 4.5, 4.6, 4.7 <i>(withdrawn standard)</i>
DIN EN 15416-1 2017-05	Adhesives for load bearing timber structures other than phenolic and aminoplastic – Test methods – Part 1: Long-term tension load test perpendicular to the bond line at varying climate conditions with specimens perpendicular to the glue line (Glass house test)
DIN EN 15416-3 2019-06	Adhesives for load bearing timber structures other than phenolic and aminoplastic - Test methods - Part 3: Creep deformation test at cyclic climate conditions with specimens loaded in bending shear
DIN EN 15416-4 2017-05	Adhesives for load bearing timber structures other than phenolic and aminoplastic – Test methods – Part 4: Determination of open assembly time for one-component polyurethane-based adhesives
DIN EN 15416-5 2017-05	Adhesives for load bearing timber structures other than phenolic and aminoplastic – Test methods – Part 5: Determination of minimum pressing time
E DIN EN 15425 2022-02	Adhesives – One-component polyurethane for load-bearing timber structures – Classification and performance requirements <i>here:</i> Annex A: Climatic treatment prior to shear testing Annex B: Delamination test for the bonding of finger joints
E DIN EN 16254 2022-02	Adhesives – Emulsion polymerised isocyanate (EPI) for load-bearing timber structures – Classification and performance requirements <i>here:</i> Annex A: Conditioning before the shear test
DIN 53255 2017-08	Testing of wood adhesives and glued wood joints - Mechanical delamination tests by grooving and chopping

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

Decision of the Commission	System ¹⁾	Technical specification
1995/467/EG Gypsum products	3	EN 15283-2:2008+A1:2009 Gypsum boards with fibrous reinforcement – Definitions, requirements and test methods – Part 2: Gypsum fibre boards
1997/808/EG Floor coverings	3	EN 14041:2004+AC:2006 Resilient, textile and laminate floor coverings – Essential characteristics
		EN 14342:2013 Wood flooring – Characteristics, evaluation of conformity and marking
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
1999/91/EG Thermal insulation products	3	EN 13168:2012+A1:2015 Thermal insulation products for buildings – Factory made wood wool (WW) products – Specification
		EN 13171: 2012+A1:2015 Thermal insulation products for buildings – Factory made wood fibre (WF) products – Specification

¹⁾ System for assessment and verification of constancy of performance

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

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

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5 Testing of emissions of dangerous substances of construction products where reference to relevant harmonised technical specifications is not required (point 3. Annex V, (EU) No 305/2011)

Emission of dangerous substances

EN 16516 Construction products: Assessment of release of dangerous substances
2017+A1:2020 - Determination of emissions into indoor air; Chapter 8.3

The testing laboratory meets the appropriate requirements in accordance with Article 43 of the Construction Products Regulation.

Abbreviations used:

ASTM American Society for Testing and Materials
CARB California Air Resources Board
DIN Deutsches Institut für Normung e.V. (German Institute for Standardisation)
EC European Community
EN European Standard
EPA US-Environmental Protection Agency
EU European Union
IEC International Electrotechnical Commission
ISO International Organization for Standardization
JIS Japan Industrial Standard
PA In-house method of Wilhelm-Klauditz-Institut, WKI
TSCA Toxic Substances Control Act

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