Deutsche Akkreditierungsstelle

Annex to the Partial Accreditation Certificate D-PL-11068-01-01 according to DIN EN ISO/IEC 17025:2018

Valid from: **27.09.2023**

Date of issue: 27.09.2023

This annex is a part of the accreditation certificate D-PL-11068-01-00.

Holder of partial accreditation certificate:

Karlsruher Institut für Technologie

with its testing laboratory

Versuchsanstalt für Stahl, Holz und Steine
Otto-Ammann-Platz 1, 76131 Karlsruhe

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.

Physical and mechanical testing and fire behaviour testing of steel and lightweight constructions and testing of building products, building kits and building types;

Testing of construction products (system of assessment and verification of constancy of performance 3) within the scope of the 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.

The testing laboratory is permitted, without being required to inform and obtain prior approval from DAkkS, to use standards or equivalent testing methods listed in this document with different issue dates. The testing laboratory maintains a current list of all testing methods within the flexible scope of accreditation.

1 Physical and mechanical testing and fire behaviour testing of steel and lightweight constructions

1.1 Timber products and fasteners

DIN EN 408 2012-10	Timber structures - Structural timber and glued laminated timber - Determination of some physical and mechanical properties *here Sections:* 5 Determination of dimensions of test pieces 6 Determination of moisture content of test pieces 7 Determination of density of test pieces 9 Determination of local modulus of elasticity in bending 10 Determination of global modulus of elasticity in bending 11 Determination of the shear modulus according to section 11.2 Shear field test method 12 Determination of modulus of elasticity in tension parallel to the grain 13 Determination of tension strength parallel to the grain 14 Determination of modulus of elasticity in compression parallel to the grain 15 Determination of compression strength parallel to grain 16 Determination of tension an compression strength perpendicular to the grain 17 Determination of modulus of elasticity perpendicular to the grain 18 Determination of shear strength parallel to the grain 19 Bending strength parallel to grain
DIN EN 409 2009-08	Timber structures - Test methods - Determination of the yield moment of dowel type fasteners
DIN EN 1382 2016-07	Timber structures - Test methods - Withdrawal capacity of timber fasteners
DIN EN 1383 2016-07	Timber structures - Test methods - Pull through resistance of timber fasteners
EAD 130118-01-0603	Screws and threaded rods for use in timber constructions

EAD 130336-00-0603	Point connector - Dovetail made of plywood for cross laminated timber
EN 1995-1-1:2004 + AC:2006 + A1:2008	Eurocode 5: Design of timber structures - Part 1-1: General - Common rules and rules for buildings *here Sections:* 7.1 Joint slip 8.3 Nailed connections 8.4 Stapled connections 8.5 Bolted connections 8.9 Split ring and shear plate connectors 8.10 Toothed-plate connectors
DIN EN 13183-1 2002-07 + Corrigenda 1 2003-12	Moisture content of a piece of sawn timber - Part 1: Determination by oven dry method
DIN EN 14358 2016-11	Timber structures - Calculation and verification of characteristic values
DIN EN 15737 2009-12	Timber structures - Test methods - Torsional resistance of driving in screws
ASTM F 1575/F 1575M 2021	Standard Test Method for Determining Bending Yield Moment of Nails

1.2 Reaction to fire tests

DIN EN ISO 11925-2 2020-07	Reaction to fire tests – Ignitability of products subjected to direct impingement of flame – Part 2: Single-flame source test **In conjunction with:** *DIN EN 13501-1 2019-05* *Fire classification of construction products and building elements - Part 1: Classification using data from reaction to fire tests*
DIN 4102-1 1998-05	Fire behaviour of building materials and building components - Part 1: Building materials; concepts, requirements and tests

2 Testing of Building Products, Building Types, Building Parts and Building Structures

2.1 Testing of building products and building types

DIN EN 14509 2013-12	Self-supporting double skin metal faced insulating panels – Factory made products – Specifications *here Annexes:* A.1: Cross panel tensile test A.2: Compressive strength and modulus of the core material A.3: Shear test on the core material A.3.5: Calculations and results - short-term loading A.3.6: Test procedures, calculations and results - long term loading A.4: Test to determine the shear properties of a complete panel A.5: Test to determine the bending moment capacity of a simply supported panel A.6: Determination of the creep coefficient (φt) A.7: Interaction between bending moment and support force A.8: Determination of apparent core density and mass of panel A.9: Test for resistance to point loads and repeated loads A.15: Support reaction capacity at the end of a panel B.2: Test DUR1 - Annex B.3: Test DUR2 B.5: Adhesive bond between faces and prefabricated core material (wedge test) B.6: Repeated loading test C.1.2: Fire test EN ISO 11925-2 (ignitability test) C.4: Determination of the amount and thickness of the adhesive layer D.2: Dimensional tolerances
EAD 030351-00-0402	Systems of mechanically fastened flexible roof waterproofing sheets – here tests according table 7 except for the unwinding test
ETAG 006 2000-03 + draft of change of 05.01.2007	Guideline for European technical approval of systems of mechanically fastened flexible roof waterproofing membranes *here:* Annex D of the change version draft *in conjunction with:* DIN EN 12691:2006-06 and ISO 179-1:2010-11, except for the unwinding test

2.2 Testing of building parts and building structures

DIN EN 74-1 2022-09	Couplers, spigot pins and baseplates for use in falsework and scaffolds – Part 1: Couplers for tubes – Requirements and test procedures
DIN EN 12810-2 2004-03	Façade scaffolds made of prefabricated components – Part 2: Particular methods of structural design
DIN EN 12811-3 2003-02	Temporary works equipment - Part 3: Load testing
DIN EN 14782 2006-03	Self-supporting metal sheet for roofing, external cladding and internal lining – Product specification and requirements *here:* Section 4.3.2: Resistance of roofing products to concentrated forces
DIBt publications, Series B, Volume 5, 2008-04	Approval assessment procedures for service and working scaffolds - requirements, structural analysis, load testing and proof of conformity here: section 4 - tests
CUAP 03.02/14	Cable net systems *here Chapter:* 2.4.1: Tension resistance of stainless steel wire ropes for static load 2.4.2: Modulus of elasticity of stainless steel wire ropes for static loads 2.4.3: Slipping resistance of clamp for static loads 2.4.4: Tension resistance of shackles for static loads 2.4.5: Safety of horizontal cable net systems against impact loads 2.4.6: Safety of vertical cable net systems against impact loads
CUAP 06.02/02	Tension Rod System *here:* Section 4.1: Determination of characteristic values of tension resistance by tension test
CUAP 06.02/03	Point Fastener – Testing of load bearing capacity *here:* Section 2.4.1.1 Methods of verification

CUAP 06.02/07	Fastening screws for metal members and sheeting *here Chapter:* 2.4.1: Shear resistance of the connections 2.4.2: Tension resistance of the connections 3.2: Tasks of the manufacturer and notified bodies - Measurement of the geometry in accordance with Table 3 in conjunction with the DIBt Guideline of 01.08.1999, Section 3.1 - Shear fracture testing in accordance with Table 3 in conjunction with ECCS publication no. 42, Section B.3.4.2 - Shear fracture testing in accordance with Table 3 in conjunction with the DIBt Guideline of 01.08.1999, Section 3.7 - Bolt penetration behaviour and torsion fracture in accordance with Table 3 in conjunction with the DIBt Guideline of 01.08.1999, Sections 3.3.1, 3.3.2, 3.4.1 and 3.4.2 - Hydrogen embrittlement in accordance with Table 3 in conjunction with the DIBt Guideline of 01.08.1999, Section 3.6 - Ductility (bolt head impact testing) in accordance with Table 3 in conjunction with the DIBt Guideline of 01.08.1999, Section 3.5 and DIN EN ISO 898-1
CUAP 06.02/09	Prefabricated steel and stainless steel wire ropes with end connectors *here Chapter:* 2.4.1: Tension resistance 2.4.2: Modulus of elasticity

CUAP 06.02/12	Fastening Screws for Sandwich Panels *here Chapter:* 2.4.1: Shear resistance of the connections 2.4.2: Tension resistance of the connections 2.4.3: Design resistance in case of combined tension and shear forces 2.4.4: Check of bending capacity in case of thermal expansion (bending test) 3.2: Tasks of the manufacturer and notified bodies - Measurement of the geometry in accordance with Table 3 in conjunction with the DIBt Guideline of 01.08.1999, Section 3.1 - Shear fracture testing in accordance with Table 3 in conjunction with ECCS publication no. 42, Section B.3.4.2 - Shear fracture testing in accordance with Table 3 in conjunction with the DIBt Guideline of 01.08.1999, Section 3.7 - Bolt penetration behaviour and torsion fracture in accordance with Table 3 in conjunction with the DIBt Guideline of 01.08.1999, Sections 3.3.1, 3.3.2, 3.4.1 and 3.4.2 - Hydrogen embrittlement in accordance with Table 3 in conjunction with the DIBt Guideline of 01.08.1999, Section 3.6 - Ductility (bolt head impact testing) in accordance with Table 3 in conjunction with the DIBt Guideline of 01.08.1999, Section 3.5 and DIN EN ISO 898-1
CUAP 06.02/13	Blind rivets for metal members and sheeting *here Chapter:* 2.4.1: Shear resistance of the connections 2.4.2: Tension resistance of the connections 2.4.3: Shear resistance of blind rivet 2.4.4: Tension resistance of blind rivet 2.4.5: Design resistance in case of combined tension and shear forces 3.2: Tasks of the manufacturer and notified bodies - Measurement of the geometry in accordance with Table 4 in conjunction with the DIBt Guideline of 01.08.1999, Section 2.1
CUAP 03.02/16	Roof and Wall Systems with Hidden Fastenings *here Chapter:* 2.4.1: Mechanical resistance and stability, safety in use 2.4.3: Corrosion protection of elements made of metal
EAD 331072-00-0601	Anchor Devices for Fastening Personal Fall Protection Systems to Concrete Structures *here Chapter:* 2.2.4: Static load 2.2.5: Dynamic loading 2.2.6: Check of deformation capacity in case of constraining forces 2.2.7: Durability

ECCS publication no. 124	The Testing of Connections with Mechanical Fasteners in Steel Sheeting and Sections *here:* Chapter 3: Test Procedures
CIB Report publication 320/ ECCS publication no. 127	Preliminary European Recommendations for testing and design of fastenings for sandwich panels *here Chapter:* 2: Testing of fastenings used to fix the panels to the frames of buildings 3: Testing of fastenings installed to a face layer 4: Additional tests

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

Decision / Resolution of the Commission	System[1)]	Technical Specification
1997/176/EC structural timber products	3	**EN 14545:2008** Timber structures - Connectors - Requirements
		EN 14592:2008+A1:2012 Timber structures - Dowel-type fasteners - Requirements

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

The requirements for a testing laboratory in accordance with Article 43 of the Construction Products Regulation are fulfilled.

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

Abbreviations used:

CIB	International Council for Research and Innovation in Building and Construction
CUAP	Common Understanding Assessment Procedure
DIBt	Deutsches Institut für Bautechnik
DIN	Deutsches Institut für Normung e. V.
EAD	European Assessment Document
EN	European Standard
ECCS	European Convention for Constructional Steelwork
ETAG	European Technical Approval Guideline
ISO	International Organization for Standardization