

Annex to the accreditation certificate D-PL-11054-01-00

3 Material and Product Tests

3.1 General Physical-Mechanical Material Tests (DD)

3.1.1 Wood, wooden materials, plastics, insulation materials *

Test type	Measured variable / Test parameters	Measuring and testing range	Characteristic processes
Bending	Force	0 - 160 KN	DIN EN 789 DIN EN 310 DIN EN 408 ISO 178 DIN EN 52186
Traction	Force	0 - 250 KN	DIN EN 300, DIN EN 314 DIN EN 319 DIN EN 320 DIN EN 622-5,789, DIN EN 1087-1, ISO 527-2, ISO 527-3
Pressure	Force	0 - 250 KN	DIN EN 789, DIN EN 14080, DIN EN 13354
Deformation	Travel	0 - 500 mm	DIN EN 789 DIN EN 408 DIN EN 1156 DIN EN 52186
Length, width, thickness	Travel	0 - 500 mm	DIN EN 310, DIN EN 317 DIN EN 318 DIN EN 323 DIN EN 324-1 DIN EN 789 DIN EN 1602, DIN 52184 ISO 24336 DIN EN ISO 24343-1
Mass	Mass	0 – 150 kg	DIN EN 318 DIN EN 322 DIN EN 323 DIN EN 789 DIN EN 13183-1

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DIN EN ISO 178 2013-09	Plastic composites - Determination of flexural properties
DIN EN ISO 179-1 2010-11	Plastics - Determination of Charpy impact properties - Part 1: Non-instrumented impact test
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 methods
DIN EN 314-2 1993-08	Plywood - Bonding quality - Part 2: Requirements
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	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

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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 326-2 2014-10	Wood-based panels - Sampling, cutting and inspection - Part 2: Quality control in the factory
DIN EN 326-3 2004-02	Wood-based panels - Sampling, cutting and inspection - Part 3: Inspection of an isolated lot of panels
DIN EN 336 2013-12	Structural timber - Sizes, permitted deviations
DIN EN 384 2016-12	Structural timber - Determination of characteristic values of mechanical properties and density
DIN EN 408 2012-10	Timber structures - Structural timber and glued laminated timber - Determination of some physical and mechanical properties
DIN EN 438-2 2016-06	High-pressure decorative laminates (HPL) - Sheets based on thermosetting resins (usually called laminates) - Part 2: Determination of properties
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
DIN EN ISO 527-1 2012-06	Plastics - Determination of tensile properties - Part 1: General principles
DIN EN ISO 527-2 2012-06	Plastics - Determination of tensile properties - Part 2: Test conditions for moulding and extrusion plastics
DIN EN ISO 527-3 2003-07	Plastics - Determination of tensile properties - Part 3: Test conditions for films and sheets
DIN EN ISO 604 2003-12	Plastics - Determination of compressive properties
DIN EN 635-1 1995-01	Plywood - Classification by surface appearance - Part 1: General

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DIN EN 635-2 1995-08	Plywood - Classification by surface appearance - Part 2: Hardwood
DIN EN 635- 3 1995-08	Plywood - Classification by surface appearance - Part 3: Softwood
DIN EN 789 2005-01	Timber structures - Test methods - Determination of mechanical properties of wood based panels
DIN EN 822 2013-05	Thermal insulating products for building applications - Determination of length and width
DIN EN 823 2013-05	Thermal insulating products for building applications - Determination of thickness
DIN EN 824 2013-05	Thermal insulating products for building applications - Determination of squareness
DIN EN 825 2013-05	Thermal insulating products for building applications - Determination of flatness
DIN EN 826 2013-05	Thermal insulating products for building applications - Determination of compression behaviour
DIN EN 1087-1 1995-04	Particleboards - Determination of moisture resistance - Part 1: Boil test
DIN EN 1128 1995-11	Cement-bounded particleboards - Determination of hard body impact resistance
DIN EN 1156 2013-10	Wood-based panels - Determination of duration of load and creep factors
DIN EN 1195 1998-06	Timber structures - Test methods - Performance of structural floor decking
DIN EN 1309-1 1997-08	Round and sawn timber - Method of measurement of dimensions - Part 1: Sawn timber
DIN EN 1328 1996-09	Cement bonded particleboards - Determination of frost resistance
DIN EN 1382 2000-03	Timber structures - Test methods - Withdrawal capacity of timber fasteners

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DIN EN 1383 2016-07	Timber structures - Test methods - Pull through resistance of timber fasteners
DIN EN 1533 2010-12	Wood flooring - Determination of bending strength under static load - Test methods
DIN EN 1534 2011-01	Wood flooring - Determination of resistance to indentation - Test method
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 °C/ 50 % relative humidity)
DIN EN 1604 2013-05	Thermal insulating products for building applications - Determination of dimensional stability under specified temperature and humidity conditions
DIN EN 1606 2013-05	Thermal insulating products for building applications - Determination of compressive creep
DIN EN 1607 2013-05	Thermal insulating products for building applications - Determination of tensile strength perpendicular to faces
DIN EN 1608 2013-05	Thermal insulating products for building applications - Determination of tensile strength parallel to faces
DIN EN 1609 2013-05	Thermal insulating products for building applications - Determination of short term water absorption by partial immersion
DIN EN ISO 1798 2008-04	Flexible cellular polymeric materials - Determination of tensile strength and elongation at break
DIN EN ISO 1856 2008-01	Flexible cellular polymeric materials - Determination of compression set
DIN EN 1910 2016-08	Wood and parquet flooring and wood panelling and cladding - Determination of dimensional stability
DIN EN ISO 2440 2010-06	Flexible and rigid cellular polymeric materials - Accelerated ageing tests

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DIN 4074-1 2012-06	Strength grading of wood - Part 1: Coniferous sawn timber
DIN 4074-2 1958-12	Building Timber for Wood Building Components - Quality Conditions for Building Logs (Softwood)
DIN 4074-5 2008-12	Strength grading of wood - Part 5: Sawn hard wood
DIN EN ISO 6892-1 2009-12	Metallic materials - Tensile testing - Part 1: Method of test at room temperature
DIN EN 12086 2013-06	Thermal insulating products for building applications - Determination of water vapour transmission properties
DIN EN 12087 2013-06	Thermal insulating products for building applications - Determination of long term water absorption by immersion
DIN EN 12089 2013-06	Thermal insulating products for building applications - Determination of bending behaviour
DIN EN 12090 2013-06	Thermal insulating products for building applications - Determination of shear behaviour
DIN EN 12091 2013-06	Thermal insulating products for building applications - Determination of freeze-thaw resistance
DIN EN 12105 1998-10	Resilient floor coverings - Determination of moisture content of agglomerated composition cork
DIN EN 12430 2013-05	Thermal insulating products for building applications - Determination of behaviour under point load
DIN EN 12431 2013-05	Thermal insulating products for building applications - Determination of thickness for floating floor insulating products
DIN EN 12871 2013-09	Wood-based panels - Performance specifications and requirements for load bearing boards for use in floors, walls and roofs
DIN EN 12939 2001-02	Thermal performance of building materials and products - Determination of thermal resistance by means of guarded hot plate and heat flow meter methods, Products of high and medium thermal resistance

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DIN EN 13183-1 2002-07 + Amendment 1: 2003-12	Moisture content of a piece of sawn timber - Part 1: Determination by oven dry method
DIN EN 13354 2009-02	Solid wood panels - Bonding quality - Test method
ISO 13362 2000-11	Flexible cellular polymeric materials - Determination of compression set in humid conditions
DIN EN 14019 2016-11	Curtain Walling - Impact resistance - Performance requirements
DIN EN 14080 2013-09	Timber structures - Glued laminated timber and glued laminated solid timber - Requirements
DIN EN 14374 2005-02	Timber structures - Structural laminated veneer lumber - Requirements
DIN EN 15534-1 2018-02	Composites made from cellulose-based materials and thermoplastics (usually called wood-polymer composites (WPC) or natural fibre composites (NFC)) - Part 1: Test methods for characterisation of compounds and products
DIN V 18032-2 2001-04	Sport halls - Halls for gymnastics, games and multi-purpose use - Part 2: Floors for sporting activities; Requirements, testing
DIN EN ISO 23996 2012-04	Resilient floor coverings - Determination of density
DIN EN ISO 23997 2012-04	Resilient floor coverings - Determination of mass per unit area
ISO 24334 2014-12	Laminate floor coverings - Determination of locking strength for mechanically assembled panels
ISO 24336 2005-03	Laminate floor coverings - Determination of thickness swelling after partial immersion in water
ISO 24337 2006-08	Laminate floor coverings - Determination of geometrical characteristics
DIN EN ISO 24341 2012-04	Resilient and textile floor coverings - Determination of length, width and straightness of sheet

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DIN EN ISO 24342 2012-04	Resilient and textile floor-coverings - Determination of side length, edge straightness and squareness of tiles
DIN EN ISO 24343-1 2012-04	Resilient and laminate floor coverings - Determination of indentation and residual indentation - Part 1: Residual indentation
DIN EN ISO 24344 2012-04	Resilient floor coverings - Determination of flexibility and deflection
DIN EN ISO 24345 2012-04	Resilient floor coverings - Determination of peel resistance
DIN EN ISO 24346 2012-04	Resilient floor coverings - Determination of overall thickness
DIN 50100 1978-02	Testing of Materials - Continuous Vibration Test, Definitions, Symbols, Procedure, Evaluation
DIN 52180-1 1977-11	Testing of wood - Sampling and cutting, principles
DIN 52182 1976-09	Testing of wood - Determination of density
DIN 52184 1979-05	Testing of wood - Determination of swelling and shrinkage
DIN 52185 1976-09	Testing of wood - Compression test parallel to grain
DIN EN 52186 1978-06	Testing of wood - Bending test
DIN 52187 1979-05	Testing of wood - Determination of ultimate shearing stress parallel to grain
DIN 52188 1979-05	Testing of wood - Determination of ultimate tensile stress parallel to grain
DIN 52189-1 1981-12	Testing of wood - Impact bending test; Determination of impact bending strength
DIN 52192 1979-05	Testing of wood - Compression test perpendicular to grain

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DIN 52367 2017-05	Wood-based panels - Determination of shear strength parallel to the surface
DIN 52376 1978-11	Testing of plywood - Determination of compression strength parallel to the surfaces
DIN 52377 1978-11	Testing of plywood - Determination of modulus of elasticity in tension and of tensile strength
DIN 53255 2017-08	Testing of wood adhesives and glued wood joints - Mechanical delamination tests by grooving and chopping
DIN 53293 1982-02	Testing of sandwiches - Bending test
DIN 53463 1974-04	Testing of Laminates - Splitting Test on Laminated Sheets
DIN 68141 2016-12	Wood adhesives - Determination of the open drying time and evaluation of wetting and brushability
DIN 68365 2008-12	Sawn timber for carpentry - Appearance grading - Softwood
DIN 68705-2 2003-10	Plywood - Part 2: Blockboard and laminboard for general use
DIN 68705-3 1981-12	Plywood; veneered plywood <i>(standard withdrawn)</i>
DIN 68705-4 1981-12	Plywood; core-plywood for buildings purposes <i>(standard withdrawn)</i>
DIN 68705-5 1980-10	Plywood; Veneer plywood of beech for building <i>(standard withdrawn)</i>
DIN 68705-5 Supplement 1 1980-10	Interrelations between the composition of the panel, elastic properties and strengths <i>(standard withdrawn)</i>
ETB fall prevention 1985-06	ETB guideline "Bauteile, die gegen Absturz sichern" ["Components which protect against falling"]

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3.1.2 Bondings, adhesive tests, load-bearing applications

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 2013-06	Adhesives for load-bearing timber structures - Test methods - Part 2: Determination of resistance to delamination
DIN EN 302-3 2013-06	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 structures - Test methods - Part 5: Determination of maximum assembly time under referenced conditions
DIN EN 302-6 2013-06	Adhesives for load-bearing timber structures - Test methods - Part 6: Determination of the minimum pressing 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 15416-2 2008-03	Adhesives for load bearing timber structures other than phenolic and aminoplastic - Test methods - Part 2: Static load test of multiple bondline specimens in compression shear

3.1.3 Bondings, bond strength, adhesive tests, non-load-bearing applications

DIN EN 205 2016-12	Adhesives - Wood adhesives for non-structural applications - Determination of tensile shear strength of lap joints
DIN 281 1994-03	Parquet adhesives - Requirements, testing, instructions for processing (standard withdrawn)
DIN EN 14257 2006-09	Adhesives - Wood adhesives - Determination of tensile strength of lap joints at elevated temperature (WATT'91)

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3.1.4 Special physical material properties

DIN EN ISO 354 2003-12	Measurement of sound absorption in a reverberation room
DIN EN ISO 717-1 2013-06	Acoustics - Rating of sound insulation in buildings and of building elements - Part 1: Airborne sound insulation
DIN EN ISO 717-2 2013-06	Acoustics - Rating of sound insulation in buildings and of building elements - Part 2: Impact sound insulation
DIN EN ISO 10140-2 2010-12	Acoustics - Laboratory measurement of sound insulation of building elements - Part 2: Measurement of airborne sound insulation
DIN EN ISO 10140-3 2015-11	Acoustics - Laboratory measurement of sound insulation of building elements - Part 3: Measurement of impact sound insulation
DIN EN ISO 11654 1997-07	Sound absorbers for use in buildings; Rating of sound absorption
DIN EN 16205 2013-09	Laboratory measurement of walking noise on floors
DIN CEN/TS 16354 2014-03	Laminate floor coverings - Underlays - Specification, requirements and test methods
IHD <i>Werknorm</i> [work standard] 431 2003-04	Bestimmung des raumakustischen Verhaltens (Gehschall – Begehung durch einen Probanden) [Determination of the acoustic behaviour of a room (walking noise - inspection through a test subject)]
EPLF Standard 021029-3 2004-10	Determination of the acoustic behaviour of a room (walking noise - stimulus by means of tapping machine)
EPLF Working Draft WD 021029-5 plus 2010-03	Acoustics - Measurement of reflected walking sound using an impulse hammer
ASTM E 90 2009	Laboratory measurement of airborne sound insulation from room dividers
ASTM E 413 2016	Rated values for sound insulation; Classification

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ASTM E492 2009	Laboratory measurement of structure-borne sound transmission through floors and ceilings with tapping machine
ASTM E 989 2006	Rated values for structure-borne sound transmission; Classification
ASTM E 2179 2003	Standard Test Method for Laboratory Measurement of the Effectiveness of Floor Coverings in Reducing Impact Sound Transmission Through Concrete Floors

3.2 General Insulation and Humidity-Related Material Tests (DD)

DIN EN ISO 12572 2017-05	Hygrothermal performance of building materials and products - Determination of water vapour transmission properties
DIN EN 12664 2001-05	Thermal performance of building materials and products - Determination of thermal resistance by means of guarded hot plate and heat flow meter methods - Dry and moist products with medium and low thermal resistance
DIN EN 12667 2001-05	Thermal performance of building materials and products - Determination of thermal resistance by means of guarded hot plate and heat flow meter methods - Products of high and medium thermal resistance
DIN EN 12939 2001-02	Thermal performance of building materials and products - Determination of thermal resistance by means of guarded hot plate and heat flow meter methods, Products of high and medium thermal resistance

3.3 Component Testing *

3.3.1 Mechanical-physical and climatic testing; windows, doors, vendor parts (DD)

Test type	Measured variable / Test parameters	Measuring and testing range	Characteristic processes
Usability test rig KS Schulten KS PC 1887 Sizes:	Compressed air (wind)	-3 to - 4000 Pa +3 to + 4000 Pa	DIN EN 1026 DIN EN 1027 DIN EN 12211
	Air flow rate	0.1 m ³ /h - 800 m ³ /h	DIN EN 1026

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Test type	Measured variable / Test parameters	Measuring and testing range	Characteristic processes
W 3400 x H 3500 mm	Water flow rate	1 – 45 l/min	DIN EN 1027 DIN EN 12155
	Length/position sensor	0 – 50 (\pm 25) mm	DIN EN 12211
Continuous operation test rig (incl. measuring devices for speed, strength, torque and angle of rotation)	Speed	0 – 800 mm/s	DIN EN 1191
	Torque	0 – 100 Nm	
	Angle of rotation	0 – 160°	
Torque measuring device	Torque	0.2 - 12 Nm	DIN EN12046-1 DIN EN12046-2
Force measuring device	Force	0 – 10 kN	DIN EN 179 DIN EN 1125
Position sensor	Length	0 – 100 mm	DIN EN 14609
Impactor/Sandbag	Mass	50 kg / 30 – 50 kg	DIN 18008-4 DIN EN 949 DIN EN 1629 DIN EN 13049
	Drop height	(100) 200 – 950 mm	
Steel ball with downpipe	Mass	1.03 kg	DIN EN 950 DIN 18008-4
	Drop height	300 / 600 / 1000 / 1600 mm 1000 / 2000 mm	
Flatness deformation measurement	Travel	0 – 30 (\pm 15) mm	DIN EN 952
Climate testing	Temperature	-15° C – 70° C	DIN EN 1294
	Humidity	20% – 90 % relative humidity	

 DIN 4102-18
 1991-03

Fire behaviour of building materials and components - Fire barriers - Verification of automatic closure (continuous performance test)

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DIN 18008-1 2010-12	Glass in Building - Design and construction rules - Part 1: Terms and general bases
DIN 18008-2 2010-12 + Amendment 1 2011-04	Glass in Building - Design and construction rules - Part 2: Linearly supported glazings
DIN 18008-3 2013-07	Glass in Building - Design and construction rules - Part 3: Point fixed glazing
DIN 18008-4 2013-07	Glass in Building - Design and construction rules - Part 4: Additional requirements for barrier glazing
DIN 18095-2 1991-03	Doors - Smoke control doors; type testing for durability and leakage
DIN 18104-1 2013-05	Mechanical security equipment - Part 1: Burglar resistant products for port installation for windows and doors - Requirements and test methods
DIN 18104-2 2013-05	Mechanical security devices - Part 2: Additional burglar resistant products for windows and doors - Requirements and test methods
DIN EN 107 1982-02	Methods of testing windows - Mechanical tests
DIN EN 179 2008-04	Building hardware - Emergency exit devices operated by a lever handle or push pad, for use on escape routes - Requirements and test methods
DIN EN 947 1999-05	Hinged or pivoted doors - Determination of the resistance to vertical load
DIN EN 948 1999-11	Hinged or pivoted doors - Determination of the resistance to static torsion
DIN EN 949 1999-05	Windows and curtain walling, doors, blinds and shutters - Determination of the resistance to soft and heavy body impact for doors
DIN EN 950 1999-11	Door leaves - Determination of the resistance to hard body impact

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DIN EN 951 1999-05	Door leaves - Method for measurement of height, width, thickness and squareness
DIN EN 952 1999-11	Door leaves - General and local flatness - Measurement method
DIN EN 1026 2016-09	Windows and doors - Air permeability - Test method
DIN EN 1027 2016-09	Windows and doors - Water tightness - Test method
DIN EN 1125 2008-04	Building hardware - Panic exit devices operated by a horizontal bar, for use on escape routes - Requirements and test methods
DIN EN 1191 2013-04	Windows and doors - Resistance to repeated opening and closing - Test method
DIN EN 1628 2016-03	Pedestrian doorsets, windows - Curtain walling, grilles and shutters - Burglar resistance - Test method for the determination of resistance under static loading
DIN EN 1629 2016-03	Pedestrian doorsets, windows - Curtain walling, grilles and shutters - Burglar resistance - Test method for the determination of resistance under dynamic loading
DIN EN 1630 2016-03	Pedestrian doorsets, windows - Curtain walling, grilles and shutters - Burglar resistance - Test method for the determination of resistance to manual burglary attempts
DIN EN 1932 2013-09	External blinds and shutters - Resistance to wind loads - Method of testing
DIN EN12046-1 2004-04	Operating forces - Test method - Part 1: Windows
DIN EN 12046-2 2000-12	Operating forces - Test method - Part 2: Doors
DIN EN 12153 2000-09	Curtain walling - Air permeability - Test methods
DIN EN 12155 2000-10	Curtain walling - Watertightness - Laboratory test under static pressure

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DIN EN 12179 2000-09	Curtain walling - Resistance to wind load - Test method
DIN EN 12211 2016-10	Windows and doors - Resistance to wind load - Test method
DIN EN 12600 2003-04	Glass in building - Pendulum tests - Impact test method and classification for flat glass
DIN EN 13049 2003-08	Windows - Soft and heavy body impact - Test method, safety requirements and classification
DIN EN 13115 2001-11	Windows - Classification of mechanical properties - Racking, torsion and operating forces
DIN EN 13330 2013-09	Shutters - Hard body impact - Test method
DIN EN 13527 2001-01	Shutters and blinds - Measurement of operating force
EN 13637 2015-12	Building hardware - Electrically controlled exit systems for use on escape routes - Requirements and test methods
DIN EN 14608 2004-09	Windows - Determination of the resistance to racking
DIN EN 14609 2004-09	Windows - Determination of the resistance to static torsion

3.3.2 Climatic component testing (DD)

Testing- and measuring devices / processes	Measurement parameters	Measurement range	Characteristic processes
Climatic test chambers	Length	0 – 25 mm	DIN EN 1121 DIN EN 13420

DIN EN 1121 2000-09	Doors; Behaviour between two different climates; Test method
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DIN EN 1294 2000-07 Door leaves - Determination of the behaviour under humidity variations in successive uniform climates

DIN EN 13420 2011-07 Windows - Behaviour between different climates - Test method

3.3.3 Thermal component testing (DD)

Testing- and measuring devices / processes	Measurement parameters	Measurement range	Characteristic processes
Hot box	Heat transition coefficient (U-value)	0.1 – 10 W / m ² K	DIN EN 12567-1 DIN EN 12412-2 DIN EN 8990
Calculation software FEM (Finite- Element-Method) additional calculation programs	Heat transition coefficient (U-value)	0.1 – 10 W / m ² K	DIN EN ISO 10077-1 DIN EN ISO 10077-2 DIN EN 673
	Heat transfer resistance (R-value)	5 – 0.01 m ² K/W	DIN EN ISO 6946
	linear thermal bridge (ψ -value)	0 – 1 W / m ² K	DIN EN ISO 10211
	Surface temperature	-50 – +100 °C	DIN EN ISO 10211
	Temperature factors / Isothermal circulation	0 – 1	DIN 4108-2

DIN EN 673 2011-04 Glass in building - Determination of thermal transmittance (U value) - Calculation method

DIN EN 12412-2 2003-11 Thermal performance of windows, doors and shutters - Determination of thermal transmittance by hot box method - Part 2: Frames

DIN EN ISO 6946 2018-03 Building components and building elements - Thermal resistance and thermal transmittance - Calculation methods

DIN EN ISO 8990 1996-09 Thermal insulation - Determination of steady-state thermal transmission properties - Calibrated and guarded hot box

DIN EN ISO 10077-1 2018-01 Thermal performance of windows, doors and shutters - Calculation of thermal transmittance - Part 1: General

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DIN EN ISO 10077-2 2018-01	Thermal performance of windows, doors and shutters - Calculation of thermal transmittance - Part 2: Numerical method for frames
DIN EN ISO 10211 2018-03	Thermal bridges in building construction - Heat flows and surface temperatures - Detailed calculations
DIN EN ISO 12567-1 2010-12	Thermal performance of windows and doors - Determination of thermal transmittance by the hot-box method - Part 1: Complete windows and doors
DIN EN ISO 12567-2 2006-03	Thermal performance of windows and doors - Determination of thermal transmittance by hot box method - Part 2: Roof windows and other projecting windows
DIN EN ISO 12631 2013-01	Thermal performance of curtain walling - Calculation of thermal transmittance
DIN 4108-2 2013-02	Thermal protection and energy economy in buildings - Part 2: Minimum requirements to thermal insulation
DIN 52619-3 1985-02	Testing of thermal insulation - Determination of the thermal resistance and the thermal transmission coefficient of windows - Determination on frames
ISO 15099 2003-11	Thermal performance of windows, doors and shading devices - Detailed calculations

3.4 Testing of Furniture, Furniture Components and Fittings (includes testing for the GS mark)

IHD-W 441 2005-09	Prüfmethoden zur Bestimmung der elastomechanischen Eigenschaften von Sitz-Polstermöbeln [Test methods for determining the elastomechanical qualities of upholstered furniture]	DD
IHD-W 442 2005-01	Prüfmethoden zur Bestimmung der mikroklimatischen Eigenschaften von Sitz-Polstermöbeln [Test methods for determining the microclimatic qualities of upholstered furniture]	DD
IHD-W 443 2005-01	Prüfmethoden zur Bestimmung der Stützfunktion von Sitz-Polstermöbeln [Test methods for determining the support function of upholstered furniture]	DD