Prüfzentrum für Bauelemente

According to the

Accreditation Certificate

D-PL-17012-01-00 according to DIN EN 1SO/IEC 17025:2018

issued on: 01.12.2023

for the testing laboratory:
PfB GmbH & Co. Prüfzentrum für Bauelemente KG

at the location:

Lackermannweg 24, 83071 Stephanskirchen, Germany

The testing laboratory fulfils the requirements according to DIN EN ISO/IEC 17025:2018 to perform the listed conformity assessment activities. The testing laboratory fulfils any additional legal and normative requirements, including those in relevant sectoral programmes, provided that these are explicitly confirmed.

The requirements for the management system in DIN EN ISO/IEC 17025 are written in a language relevant to testing laboratories and are generally in accordance with the principles of DIN EN ISO 9001.

Test in the following areas:

mechanical-technological, thermal-technological, acoustic testing for functionality and resistance, as well as testing for burglar resistance of windows and doors, gates and curtain wallings; grille elements and closures

testing of curtain walling, windows and doors and gates (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/Bauproduktenverordnung)

Testing of resistance to fire and sound absorption of construction products for which the reference to a relevant harmonised technical specification is not required (point 3 of Annex V, (EU) No 305/2011)

The testing laboratory is permitted to use the standardised or equivalent test methods listed here with different issue statuses without the need for prior information and approval by DAkkS.

Prüfzentrum für Bauelemente

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1 Testing of windows and doors, Industrial, commercial and garage doors and gates and curtain wallings

1.1 Resistance to windload

DIN EN 1932 2013-09	External blinds and shutters – Resistance to wind load – Method of testing and performance criteria
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DIN EN 12211 2016-10	Windows and doors – Resistance to wind load – Test method
DIN EN 12444 2001-02	Industrial, commercial and garage doors and gates – Resistance to wind load – Testing and calculation
DIN EN 13561 2015-08 + corrigendum 1 2017-01	External blinds and awnings – Performance requirements including safety

1.2 Water tightness

DIN EN 1027 2016-09	Windows and doors – Water tightness – Test method
DIN EN 12155 2000-10	Curtain walling – water tightness – Laboratory test under static pressure
DIN EN 12489 2000-11	Industrial, commercial and garage doors and gates - Resistance to water penetration - Test
DIN EN 13050 2011-09	Curtain walling – water tightness – Laboratory test under dynamic condition of air pressure and water spray

DIN EN 13051 2001-11	Curtain walling – Water tightness – Site test
AAMA 501.1-05 2005-02	Standard Test Method for Water Penetration of Windows, Curtain Walls and Doors Using Dynamic Pressure
AAMA 501.2-15 2015-12	Quality Assurance and Diagnostic Water Leakage - Field Check of Installed Storefronts, Curtain Walls and Sloped Glazing Systems

1.3 Air permeability

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DIN EN 12153 2023-12	Curtain walling – Air permeability – Test method
DIN EN 12427 2000-11	Industrial, commercial and garage doors and gates - Air permeability - Test method
ASTM E 283 2004	Standard Test Method for Determining Rate of Air Leakage Through Exterior Windows, Curtain Walls and Doors Under Specified Pressure Differences Across the Specimen
ASTM E 330/E330M 2014	Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference
ASTM E 331 2000	Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Uniform Static Air Pressure Difference
CWCT TN 44 2004	Whole building air leakage tests (7 pp)

NAFS 2011	North American fenestration standard for windows, doors and skylines

1.4 Impact resistance

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DIN 18008-4 2013-07	Glass in building – Design and construction rules-– Partl 4: Additional requirements for barrier glazing Annex A: Proof of impact resistance of glazing by component testing
DIN 18008-5 2013-07	Glass in building – design and construction rules – Part 5: Additional requirements for walk-on glazing Annex A: Proof of impact resistance and residual load-bearing capacity by component testing
CWCT TN 66 2010	Safety and fragility of overhead glazing: guidance on specification (11 pp)
CWCT TN 67 2010	Safety and fragility of overhead glazing: testing and assessment (5 pp)
CWCT TN 75 2012	Impact performance of building envelopes: guidance on specification (10 pp)
CWCT TN 76 2012	Impact performance of building envelopes: method for impact testing cladding panels (6 pp)

1.5 Load bearing capacity of safety equipment

DIN EN 948 1999-11	Hinged or pivoted doors - Determination of the resistance to static torsion
DIN EN 14609 2004-09	Windows - Determination of the resistance to static torsion

1.6 Acoustics

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DIN EN ISO 3382-2 2008-09 + corrigendum 1 2009-09	Acoustics – Measurement of room acoustic parameters – Part 2: Reverberation time in ordinary rooms
DIN EN ISO 10140-2 2021-09	Acoustics - Laboratory measurement of sound insulation of building elements – Part 2: Measurement of airborne sound insulation
DIN EN ISO 10140-4 2021-09	Acoustics – Laboratory measurement of sound insulation of building elements – Part 4: Measurement procedures and requirements
DIN EN ISO 10848 -1 2018-02	Acoustics – Laboratory and field measurement of flanking transmission for airborne, impact and building service equipment sound between adjoining rooms – Part 1: frame document *(here only airborne sound excitation)*
DIN EN ISO 10848 -2 2018-02	Acoustics - Measurement of the flanking transmission of airborne sound, impact sound and sound from building services equipment between adjacent rooms in the test stand and on site - Part 2: application to type B components where the connection has a minor influcence (here only airborne sound excitation)
DIN EN ISO 16283-1 2018-04	Acoustics- Measurement of sound insulation in buildings and of building elements - Part 1: Airborne sound insulation

DIN EN ISO 16283-3 2016-09	Acoustics - Measurement of sound insulation in buildings and of building components - Part 3: Façade sound insulation

1.7 Thermal insulation

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DIN EN ISO 10077-1 2020-10	Thermal performance of windows, doors and shutters – Calculation of thermal transmittance – Part 1: General
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 10456 2010-05	Baustoffe und Bauprodukte - Wärme- und feuchtetechnische Eigenschaften - Tabellierte Bemessungswerte und Verfahren zur Bestimmung der wärmeschutztechnischen Nenn- und Bemessungswerte
DIN EN ISO 12567-1 2010-12	Thermal behaviour of windows and doors - determination of the heat transfer coefficient by means of the heating 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 the heating box method - Part 2: Skylights and other projecting windows
DIN EN ISO 12631 2018-01	Thermal behaviour of curtain walls – calculation of the heat transfer coefficient
DIN EN 673 2011-04	Glass in building – determination of thermal transmission coefficient (U value) – calculation method

DIN EN 12412-2 2003-11	Thermal behaviour of windows, doors and shutters – determination of thermal transmission coefficient by the heating box method – Part 2: frames
DIN EN 12412-4 2003-11	Thermal behaviour of windows, doors and shutters – determination of thermal transmission coefficient by the heating box method – Part 4: roller shutter boxes
DIN EN 12428 2013-04	Industrial, commercial and garage doors and gates – thermal transmission coefficient – requirements on the calculation Section 5: calculation

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DIN EN 13115 2020-11	Windows – classification of mechanical properties – vertical loads, torsion and operating forces

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DIN 18104-2 2013-05	Burglar-resistant retrofit products - Part 2: rebated retrofit products for windows and doors – requirements and test method

DIN EN 1627 2021-11	Doors, windows, curtain walling, grilles and shutters - burglar resistance - requirements and classification
DIN EN 1628 2021-11	Doors, windows, curtain walls, grilles and shutters - burglar resistance - test method for the determination of resistance under static loading
DIN EN 1629 2021-11	Doors, windows, curtain walls, grilles and shutters - burglar resistance - test method for the determination of resistance under dynamic loading
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DIN V ENV 1629 1999-04	Window, doors, shutters – burglar resistance – test method for determination of resistance under dynamic loading *(withdrawn standard)*
DIN V ENV 1630 1999-04	Windows, doors, shutters – burglar resistance – test method for the determination of resistance to manual burglary attempts (*withdrawn standard*

1.10 Corrosion

DIN EN ISO 6988 1997-03	Metallic and other inorganic coatings – test with sulphur dioxide under general humidity condensation
DIN EN ISO 9227 2023-03	Corrosion tests in artificial athmospheres – salt spray tests

DIN EN 1670 2007-06 + corrigendum 1 2008-07	Locks and building hardware – corrosion resistance – requirements and test method

1.11 Hardware

DIN EN 179 2008-04	Locks and building hardware – emergency exit devices with handle or push plate for doors in escape routes – requirements and test method
DIN EN 1125 2008-04	Locks and building hardware - panic exit devices with horizontal operating bar for doors in escape routes - requirements and test method
DIN EN 1303 2015-08	Locks and building hardware – locking cylinder for locks – requirements and test method
DIN EN 1906 2012-12	Locks and building hardware – door handles and door knobs – requirements and test method
DIN EN 12209 2016-10	Locks and building hardware – locks – mechanically operated locks and strike plates – requirements and test method
DIN EN 14846 2008-11	Building hardware – locks and latches – electromechanically operated locks and striking plates – requirements and test method
E DIN EN 15685 2019-10	Building hardware – requirements and test methods – multipoint locks, latches and locking plates
DIN EN 16867 2022-02	Building hardware – mechatronic door furniture – requirements and test method
DIN 18251-1 2002-07	Locks – mortise locks – Part 1: mortise locks for rebated doors (*withdrawn standard*)

DIN 18251-2 **2002-11**	Locks – mortise locks – Part 2: mortise locks for tubular frame doors (*withdrawn standard*)
DIN 18251-3 **2002-11**	Locks – mortise locks – Part 3: mortise locks as multiple point lock (*withdrawn standard*)
DIN 18257 **2022-02**	Building hardware – protective hardware – terms, dimensions, requirements, marking
DIN 18273 **1997-12**	Building hardware – lever handle units for fire doors and smoke control doors – terms and definitions, dimensions, requirements, testing and marking (*withdrawn standard*)
DIN 18273 **2015-07**	Building hardware – lever handle units for fire doors and smoke control doors – terms and definitions, dimensions, requirements, testing and marking
E DIN 18273 **2022-10**	Building hardware – mechanical and mechatronic door fittings for fire doors and smoke control doors – terms and definitions, dimensions, requirements, testing and marking

1.12 Smoke protection

DIN 18095-2 1991-03	Doors – smoke protection doors – type testing of continuous function of durability and tightness

1.13 Durability

DIN EN 1191 2013-04	Windows and doors – durability test – test method
DIN 4102-18 1991-03	Fire behaviour of building materials and components - fire protection closures; verification of the property "self-closing" (durability test)

1.14 Climate

DIN EN 1121 2000-09	Doors – behaviour between two different climates – test method

1.15 Mechanical aspects / safety of use

DIN EN 12453 2022-08	Industrial, commercial and garage doors and gates – safety in use – of power operated doors – requirements and test method
DIN EN 12604 2021-05	Industrial, commercial and garage doors and gates – mechanical aspects – requirements and test method
DIN EN 12605 2000-08	Industrial, commercial and garage doors and gates – mechanical aspects – test method *(withdrawn standard)*
DIN EN 13659 2015-07	Shutters and external venetian blinds – performance requirements including safety

2 Testing of curtain walling, windows and doors and gates (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 - Bauproduktenverordnung)

Decision / Resolution of Commission	System [1)]	Technical Specification
1996/580/EC Kits for curtain walls	3	**EN 13830:2003** curtain walls – product standard
1998/436/EC Roofing, skylights, roof windows and accessories	3	**EN 14351-1:2006+A2:2016** Windows and doors - product standard, performance characteristics - Part 1: windows and external doors
1999/93/EC Doors, windows, shutters, roller shutters, gates and associated parts	3	**EN 13241-1:2003+A2:2016** Industrial, commercial and 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 doors
		EN 14351-2:2018 [2)] Windows and doors - Product standard, performance characteristics - Part 2: Internal doors without fire and/or smoke resistance characteristics
		EN 16361:2013+A1:2016 [2)] Power operated doors - Product standard, performance characteristics - door systems, other than swing doors, designed for power operation

1)system for assessment and verification of constancy of performance.

2)harmonisation in preparation, intended system as indicated

The requirements for a testing laboratory according to Article 43 of the Construction Products Regulation (Bauproduktenverordnung) are fulfilled. Test procedures which are necessary for establishing the product type and which cannot be carried out by the certificate holder himself are included in the list of subcontractors.

The testing laboratory is permitted, without requiring the prior consent of the Deutsche Akkreditierungsstelle GmbH, to apply different revisions of the harmonised technical specifications.

3 Testing of fire resistance and sound insulation properties of construction products for which the indication of the location of a relevant harmonised technical specification is not required (point 3. Annex V, (EU) No 305/2011)

3.1 Fire resistance (resistance to fire)

EN 1634-2 2008	Fire resistance and smoke control tests for doors, ndustrial, commercial and garage doors and gates, closures, windows and building hardware - Part 2: characterisation test for fire resistance of building hardware
EN 1634-3 2004+AC:2006	Fire resistance and smoke density tests for fire and smoke control closures, windows and fittings - Part 3: smoke density tests for smoke control closures **in conjunction with:** ***EN 13501-2 2016*** *Fire classification of construction products and types of construction - Part 2: Classification using results of fire resistance tests, except for ventilation systems*

3.2 Sound insulation properties (acoustic performance)

EN ISO 10140-1 2016	Acoustics - Measurement of sound insulation of building components on a test stand - Part 1: application rules for specific products

Used abbreviations:

AAMA	American Architectural Manufacturers Association
ASTM	American Society for Testing and Materials
CWCT TN	Centre for window and cladding technology – Technical Note
DIN	Deutsches Institut für Normung e.V.
EN	European Standard
NAFS	North American fenestration standard
EN	Europäische Norm
NAFS	North American Fenestration Standard