



[GUARD]EX®

You Build. We guard.

- VAPOR PERMEABLE
- WATER - RESISTANT
- MOLD PROTECTION
- FIRE - RESISTANT

[GUARD]EX® Technical Datasheet | 06/2014

Knauf [GUARD]EX®

Rely on a construction method for exterior solutions
(ETICS and ventilated façade systems)

Product description

Guardex® is a non-combustible, lightweight, environment-friendly, mold-water-humidity and weather resistant sheathing board by means of special gypsum core and fiber glass fleece on both sides.

- Board type: EN 15283-1 + A1 GM-FH1R
- Colour of board liner fleece: Blue
- Colour of back fleece : Blue

Board Dimensions

Thickness : 12,5 / 15 mm
Width : 1200 mm
Length : 2000 - 3200 mm

Packaging

12,5 mm : 50 pcs / pallet
15 mm : 40 pcs / pallet

Storage

Boards, should be stored on pallets and protected from moisture and weathering before they are installed.

Field of application

Knauf Guardex® Boards are used in drywall systems as a sheathing board with thermal insulation boards on top of it and as a windshield for ventilated façades.

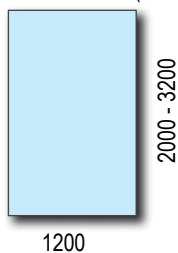
- Exterior thermal walls as a sheathing board
- Exterior walls as a windshield for ventilated façades

Properties

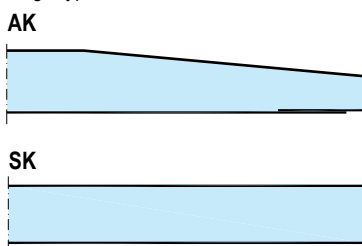
- Non-combustible materials. Highest coherence of structure when exposed to fire.
- Lightweight
- Easy installation
- Low expansion and shrinkage when climate conditions change.
- Mold resistance
- High water and humidity resistance
- Breathable (Water vapour permeability)
- Applicable to be used in façades.

Technical Details

■ Board Format (in mm)



■ Edge types

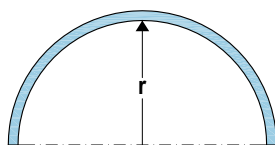


■ Dimension tolerance acc. to TS EN 15283-1+ A1

- Width : +0 / -4 mm
- Length : +0 / -5 mm
- Thickness : +0,7 / -0,7 mm
- Angularity : ≤ 2,5 mm (per m board width)

■ Minimum bending radii (dry bending)

Board thickness in mm	Min. bending radius r in m
12,5 / 15	4



Application

Application should be acc. to the applicable standards and acc. to the Knauf System Brochure of respective drywall system. For the other details the same brochure can be used.

Technical Properties	12,5 mm	15 mm	Unit	Related standard
Type of board	GM - FH1R			TS EN 15283 - 1 + A1
Fire class	A1			TS EN 13501 - 1
Water vapour diff. factor (μ)				EN ISO 10456
■ dry	10			
■ wet	4			
Thermal conductivity (λ)	0,23		W/(m·K)	TS EN 12664
Density	≥ 900		kg/m ³	
Weight	11,5±0,3	13,8±0,3	kg/m ²	
Flexural breaking load				TS EN 15283 - 1 + A1
■ longitudinal	≥ 725 / ≥ 870		N	
■ transversal	≥ 300 / ≥ 360		N	
Total water absorption	≤ 3		%	TS EN 15283 - 1 + A1
Mold resistance	10*			ASTM D 3273 - 12
Shrinkage and expansion				
■ per 1% change of relative air humidity	0,005 - 0,008		mm / m	
■ per 1 Kelvin change of temperature	0,013 - 0,02		mm / m	

* refers to 0% mould growth.

Guardex® Façade Systems

Guardex® Exterior Drywall System with ETICS

Guardex® Exterior Drywall with ETICS is constructed with substructure fixed on the load bearing construction and mineral wool between the studs for providing the thermal and sound insulation requirements. The substructure is cladded with gypsum board from inside and with Guardex® from outside. Polystyrene (EPS etc) or mineral wool are applied on the Guardex® in order to improve thermal insulation requirements of the system.

Guardex® Exterior Drywall Lining System with ETICS

Guardex® Exterior Drywall Lining with ETICS is constructed by fixing the C Studs or UA Profiles on the existing load bearing structure and if required on existing walls by means of L Angles; mineral wool between the studs for providing the thermal and sound insulation requirements. Polystyrene (EPS etc.) or mineral wool are applied on the Guardex® in order to improve thermal insulation requirements of the system.

Guardex® Ventilated Façade System

Guardex® Ventilated Façade System is constructed with metal substructure fixed on the load bearing construction of the building and mineral wool between the studs for providing the thermal and sound insulation requirements. The substructure is cladded with gypsum board from inside and with Guardex® from outside which stays behind the exterior cladding. This system is very popular for rehabilitation of the buildings because of fast, easy and effective application.

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