

# Guardex®

Technical Data Sheet

09/2019



## Guardex®

Sheathing board for ETICS and ventilated facade 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.

### Storage

Boards should be stored on pallets in a dry environment. If the boards are stored inside, max. 6 pieces on each other; outside max. 5 pieces on each other. Gypsum boards should be stored so as to prevent damage to the front faces of each boards during packaging. If the boards are stored outside, they must be covered with nylon and etc.

### Standard

TS EN 15283 - 1 + A1 GM-FH1R

### Fields of Application



Used in drywall systems as a sheathing board with thermal insulation boards on top of it and as a windshield for ventilated facades.

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

### Properties

- Non-combustible
- Light weight
- 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 facades

## Technical Data

Description	Unit	12,5 mm	15 mm	Standard
Board type	-	GM-FH1R	GM-FH1R	TS EN 15283-1+A1
Reaction to fire	class	A1	A1	TS EN 13501-1
Weight	kg/m <sup>2</sup>	approx. 11,5	approx. 13,8	-
Long edges	-	Tapered edges 		-
Front edges	-	Cut edges 		-
Mould resistance	score	10*	10*	ASTM D 3273-12
Width dimensional tolerance	mm	+0 / -4	+0 / -4	TS EN 15283-1+A1
Length dimensional tolerance	mm	+0 / -5	+0 / -5	TS EN 15283-1+A1
Thickness dimensional tolerance	mm	+0,7 / -0,7	+0,7 / -0,7	TS EN 15283-1+A1
Angularity dimensional tolerance (for 1m board width)	mm	≤ 2,5	≤ 2,5	TS EN 15283-1+A1
Bending radius (dry bending)	mm	r ≥ 4000	r ≥ 4000	-
Shrinkage and expansion per 1 Kelvin change of temperature	mm / m	0,013 - 0,02	0,013 - 0,02	TS EN 520+A1
Shrinkage and expansion per 1% change of relative air humidity	mm / m	0,005 - 0,008	0,005 - 0,008	-
Thermal conductivity λ	W/(m·K)	0,23	0,23	TS EN 12664
Water vapour resistance factor (dry)	μ	10	10	EN ISO 10456
Water vapour resistance factor (wet)	μ	4	4	EN ISO 10456
Total water absorption (Type H1)	%	≤ 3	≤ 3	TS EN 15283-1+A1
Flexural breaking load longitudinal direction	N	≥ 725	≥ 870	TS EN 15283-1+A1
Flexural breaking load transverse direction	N	≥ 300	≥ 360	TS EN 15283-1+A1

\* Highest score, no mold growth.

## Product Range

Description	Width (mm)	Length (mm)	Weight (kg/m <sup>2</sup> )	Packaging Unit (pcs./pallet)	Material Number
Guardex® 12,5 mm	1200	2400	11,5	50	448753
	1200	2500	11,5	50	431550
Guardex® 15 mm	1200	2400	13,5	30	458572
	1200	2500	13,5	30	458571

### Safety Instructions

- Wash hands with plenty of water after handling.
- Use protective gloves / protective clothing / eye protection / face protection.
- In case of contact with eyes: Rinse your eyes cautiously with water for several minutes. If there is a lens remove it and continue to rinse.
- If eye irritation persists: Get medical advice / attention.

### System Performance Values

Performance values as sound insulation, fire resistance etc. may differ acc. to the drywall system to be applied. Please check the performance values of the drywall systems;

[Knauf Technical Website](#)  
[Document Center](#)

### Guardex® Facade 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 Facade System

Guardex® Ventilated Facade 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.

### Application

Application should be done acc. to the applicable standards and acc. to the Knauf Technical Brochures of the respective drywall system.

You may also download;

[Guardex® System Brochure](#)

[Guardex® Ventilated System](#)

[Guardex® Application Phases](#)