Drywall Systems

Knauf Silentboard

Technical Data Sheet 12/2023

Knauf Silentboard

Gypsum board with high sound insulation

Product Description

Knauf Silentboard is a gypsum board with easy and fast application, and consists of a special gypsum core with a board liner cover.

Storage

Boards should be stored on pallets in a dry environment. If the boards are stored inside, max. 6 pallets on each other; outside max. 5 pallets 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.

Standards referred to

EN 520 DFR
DIN18180 GKF

Fields of Application

All fields of interior works which require enhanced fire protection and high sound insulation.

- Partition walls
- Suspended ceilings
- Wall claddings

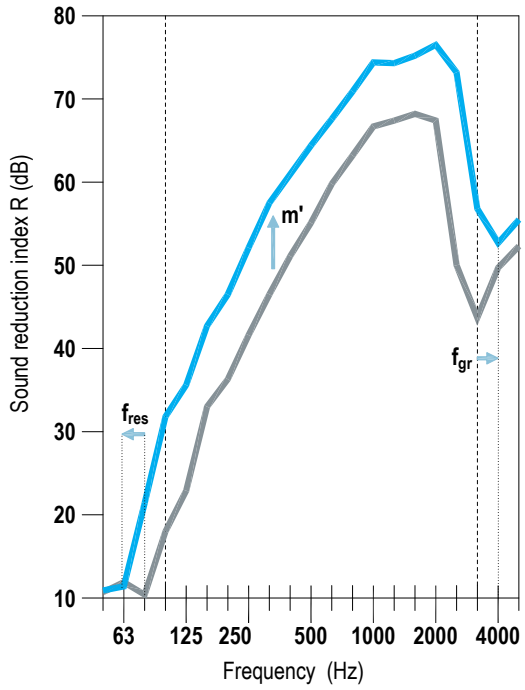
Properties

- High sound insulation
- High performance at low frequencies
- Fire resistance
- Bendable
- Non-combustible
- Low expansion and shrinkage when climate conditions change
- High surface quality
- Clean and easy installation

Appllication

Knauf Silentboard should be applied according to the details and methods specified in Knauf system brochures and relevant gypsum board standards. Installation of Knauf Silentboard is similar to that of conventional gypsum boards. Knauf Silentboard should be applied horizontally as wall and the maximum stud spacing allowed for suspended ceilings is 400 mm. Diamant® screw (HGP) should be used in order to fix the Knauf Silentboard to the substructure.

Comparison of frequency response curve of sound reduction index (R)



W111 - 12,5 mm Knauf Silentboard on both sides
W111 - 12,5 mm Regular Plus gypsum board on both sides

The sound insulation benefits result from

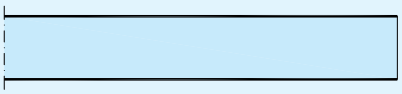
- Higher flexural ductility (influence on f_{ar})
- Increased mass per unit area (influence on f_{res})
- f_{gr} ve f_{res}

Advantageous shift from an acoustical point of view of the coincidence barrier frequency f_{gr}
Resonance frequency fres in non-critical building acoustics areas f_{res}

- m‘

Higher mass per unit area 17.5 kg/m^2

Technical Data

Description	Unit	12,5 mm	Standard
Board type	-	GKF DFR	DIN 18180 EN 520
Density	kg/m³	≥ 1400	DIN 18180
Weight	kg/m²	approx. 17,5	-
Reaction to fire	class	A2-s1,d0	EN 520
Long edges	-	Half-rounded tapared edge 	-
Front edges	-	Cut edge 	-
Width dimensional tolerance	mm	+0 / -4	EN 520
Length dimensional tolerance	mm	+0 / -5	EN 520
Thickness dimensional tolerance	mm	+0,5 / -0,5	EN 520
Angularity dimensional tolerance (for 1 m board width)	mm	≤ 2,5	EN 520
Bending radius (dry bending)	mm	r ≥ 2750	-
Bending radius (wet bending)	mm	r ≥ 1000	-
Thermal conductivity λ	W/(m·K)	0,26	EN 12664
Water vapour resistance factor (dry)	μ	10	EN ISO 10456
Water vapour resistance factor (wet)	μ	4	EN ISO 10456
Flexural breaking load longitudinal direction	N	≥ 725	EN 520
Flexural breaking load transverse direction	N	≥ 300	EN 520

Product Range

Description	Width (mm)	Length (mm)	Weight (kg/m2)	Packaging Unit (pcs./pallet)	Material Number
Knauf Silentboard 12,5 mm	625	2000	17,5	42	413365

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

Application

Application should be done acc. to the applicable standards and acc. to the Knauf Technical Brochures of the respective drywall system.
W11 Partition Wall Catalogue
D11 Suspended Ceiling Catalogue
W61 Wall Cladding Catalogue

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