

Note on English translation / Hinweise zur englischen Fassung

This is a translation of the technical data sheet valid in Germany.

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Drywall Systems

K717.de

Product Data Sheet

2017-03

GKF - DIN 18180 DFR - EN 520

Silentboard GKF

Gypsum board with exceptional sound insulation

Product description

Silentboard GKF is a gypsum board with a high weight per unit area and flexural ductility, and consists of a special gypsum core with a board liner cover.

- Board type
DIN 18180
EN 520
- Board liner
- Rear side marking

GKF
DFR
brown
red

Storage

Store boards on board pallets in a dry environment.

Quality

In compliance with EN 520, the product is subject to initial type testing and continuous factory production control and bears the CE marking.

Properties and added value

- Special gypsum core for highest degree of sound insulation
- Very good performance at low frequency range
- Easy application
- Good coherence of structure when exposed to fire
- Non-combustible
- Bendable
- Folding with mitring is possible
- Low expansion and shrinkage when climate conditions change

Field of application

Silentboard GKF sound shield boards are used in all interior fitting areas as cladding and for retrofitting drywalling systems to fire protection standards and the highest sound protection specifications.

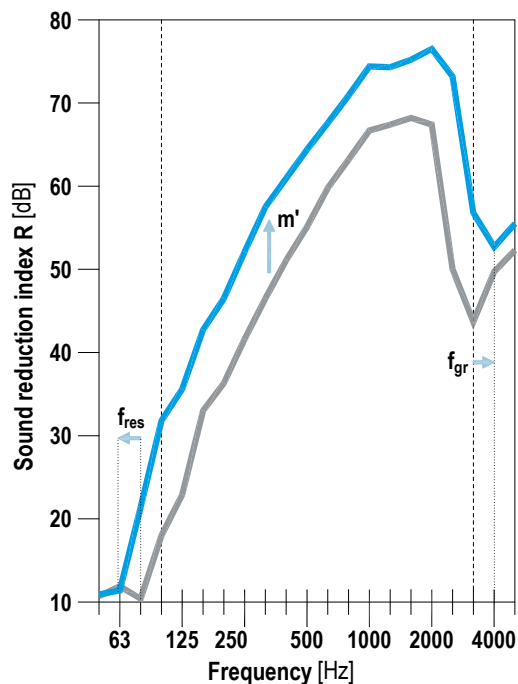
Gypsum board with exceptional sound insulation

Application

Application

Application should be done in accordance to the applicable standards and acc. to the relevant Knauf System Data Sheets for drywall systems. Silentboard GKF is applied almost like conventional gypsum boards. However, the boards are applied horizontally on partitions, and on ceilings reduced axial spacings for the furring channels (maximum 400 mm) are required. In order to avoid dust, it is preferable to break the boards (score board liner with knife and break along an edge, cutting the rear board liner). Rework and bevel the edges with a rasp. Use Knauf Diamant screws for fastening the boards to a timber or metal substructure.

Comparison of frequency response curve of sound reduction index R





- W111.de – 12.5 mm Silentboard GKF
- W111.de – 12.5 mm Knauf Bauplatte (Wallboard)

The sound insulation benefits result from

- Higher flexural ductility (influence on f_{gr})
- Increased mass per unit area (influence on f_{res})
- f_{gr} and f_{res}
Advantageous shift from an acoustical point of view of the **coincidence barrier frequency** f_{gr} and **resonance frequency** f_{res} in non-critical building acoustics areas
- m'
Higher mass per unit area 17.5 kg/m²

Technical data

Description	Unit	Value	Standard
Board type	–	GKF DFR	DIN 18180 EN 520
Density	kg/m ³	≥ 1400	DIN 18180
Board weight (nominal)	kg/m ²	approx. 17.5	DIN 18180
Reaction to fire	Class	A2-s1, d0 (B)	EN 520
Long edges with paper lining	–	Half-rounded tapered edge 	–
Front edge types	–	Cut edges 	–
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	mm per board width	≤ 2.5	EN 520
Minimum permissible bending radius, dry bending	mm	r ≥ 2750	–
Minimum permissible bending radius, wet bending	mm	r ≥ 1000	–
Water vapour resistance factor μ dry	–	10	EN ISO 10456
Water vapour resistance factor μ wet	–	4	EN ISO 10456
Thermal conductivity λ	W/(m·K)	0.26	Following EN 12664
Shrinkage and expansion per 1 % change of relative air humidity	mm/m	0.005 – 0.008	–
Shrinkage and expansion per 1 Kelvin change of temperature	mm/m	0.013 – 0.02	–
Flexural breaking load longitudinal direction	N	≥ 725	EN 520
Flexural breaking load transverse direction	N	≥ 300	EN 520
Max. limit for long term temperature exposure	°C	≤ 50	–

Product range

Description	Application	Width	Length	Packaging unit	Material number	EAN
Silentboard GKF	12.5 mm	625 mm	2000 mm	42 pieces / pallet 52.5 m ² /pallet	00413365	4003982287946
			2500 mm	42 pieces / pallet 65.6 m ² /pallet	00413366	4003982287953

Customized lengths on request



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