



GKFI - DIN 18180 DFH2IR - EN 520

Drywall Systems

03 – 2015

Knauf Diamant 12.5 / 15 mm

Special gypsum boards for premium drywalling

Product Description

- Board type
DIN 18180 GKFI
EN 520 DFH2IR
- Colour of board liner: blue
- Rear side marking: red

Order information

Knauf Diamant 12.5 and 15 mm

Standard Dimensions

- 12.5 x 1200 x 2200 mm
- 15 x 1200 x 2200 mm

Custom dimension are available upon request.

Storage

Store boards on wooden pallets in a dry environment.

Fields of Application

Knauf Diamant 12.5 / 15mm are used in all fields of interior works as cladding of premium drywall systems with enhanced requirements for sound insulation and fire protection, and in case of special requirements on mechanical resistance, in rooms with moderately high humidity.

Systems:

- Ceiling linings and suspended ceilings
- Attic linings
- Metal stud partitions
- Timber stud partitions (non-load bearing)
- Structural wood frame wall panels (load bearing)
- Installation shaft walls
- Room-in-room systems Knauf Cubo

Rooms with moderately high humidity are rooms with a constant relative air humidity of $\leq 70\%$ (e.g. domestic bathrooms).

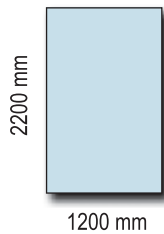
In addition, DIN 1052 and EN 1995 allow the application in structural wood frame wall panels as exterior cladding in the use category 2 (e.g. as substrate for ETICS).

Properties

- Universal application
- Increased permissible wall heights due to high strength
- High dowel load capacity
- Robust surface
- Impregnated for reduced water absorption
- Good coherence of structure when exposed to fire
- Resilient special gypsum core for high sound insulation
- Easy application
- Non-combustible
- Bending is possible (Knauf Diamant 12.5)
- Folding with mitring is possible
- Low expansion and shrinkage when climate conditions change

Technical data

Board format (in mm):



Edge types

- Long edges with paper lining:

HRAK



- Front edges:

SK



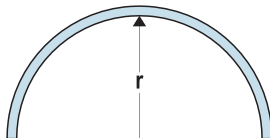
Dimension tolerance acc. to EN 520:

- Width: +0 / -4 mm
- Length: +0 / -5 mm
- Thickness: +0.5 / -0.5 mm
- Angularity: ≤ 2.5 mm per m board width

Minimum bending radii

Knauf Diamant 12.5

- Dry bending: $r \geq 2,750$ mm
 - Wet bending: $r \geq 1,000$ mm
- (Note extended residence time due to hydro-phobic core)



Board type:	GKFI	DIN 18180
	DFH2IR	EN 520
Reaction to fire EN 13501-1:	A2-s1,d0 (B)	EN 520
Water vapour diffusion resistance u:		EN ISO 10456
■ Dry:	10	
■ Wet:	4	
Thermal conductivity λ :	W/(m·K) 0.30	EN 12664
Shrinkage and expansion		
■ per 1 % change of relative air humidity:	mm/m	0.005 - 0.008
■ per 1 Kelvin change of temperature:	mm/m	0.013 - 0.02
Total water absorption:	%	≤ 10 EN 520
Density:	kg/m ³	≥ 1000
Board weight		
■ Knauf Diamant 12.5:	kg/m ²	approx. 12.8
■ Knauf Diamant 15:	kg/m ²	approx. 15.5
Characteristic compressive strength $f_{c,k}$		
(for in-plane loads):	N/mm ²	≥ 7.5 ¹⁾ following DIN EN 1995-1-1/NA
E modulus $E_{mean,II}$ (for out of plane loads):	N/mm ²	≥ 4,900 ¹⁾ following
E modulus $E_{mean,I}$ (for out of plane loads):	N/mm ²	≥ 3,900 ¹⁾ DIN EN 1995-1-1/NA
Flexural breaking load		
		EN 520
■ Knauf Diamant 12.5:		
- Longitudinal direction:	N	≥ 725
- Transverse direction:	N	≥ 300
■ Knauf Diamant 12.5:		
- Longitudinal direction:	N	≥ 870
- Transverse direction:	N	≥ 360
Surface hardness (impact diameter):	mm ϕ	≤ 15 EN 520
Max. limit for long term temperature exposure:	°C	≤ 50 (short-term ≤ 60)

¹⁾ at 20 °C and 65% rel. air humidity

Notes

Application:

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

Use Knauf Diamant Screws HGP for fastening of the boards on metal or timber substructure. Fastening on timber is also possible with staples or nails.

Disposal

Waste code number (AVV code):
17 08 02
17 09 04

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