Note on English translation / Hinweise zur englischen Fassung
This is a translation of the product data sheet valid in Germany.
All stated details and properties are in compliance with the regulations of the German standards and building regulations. They are only applicable for the specified products, system components, application rules, and construction details in connection with the specifications of the respective certificates and approvals.
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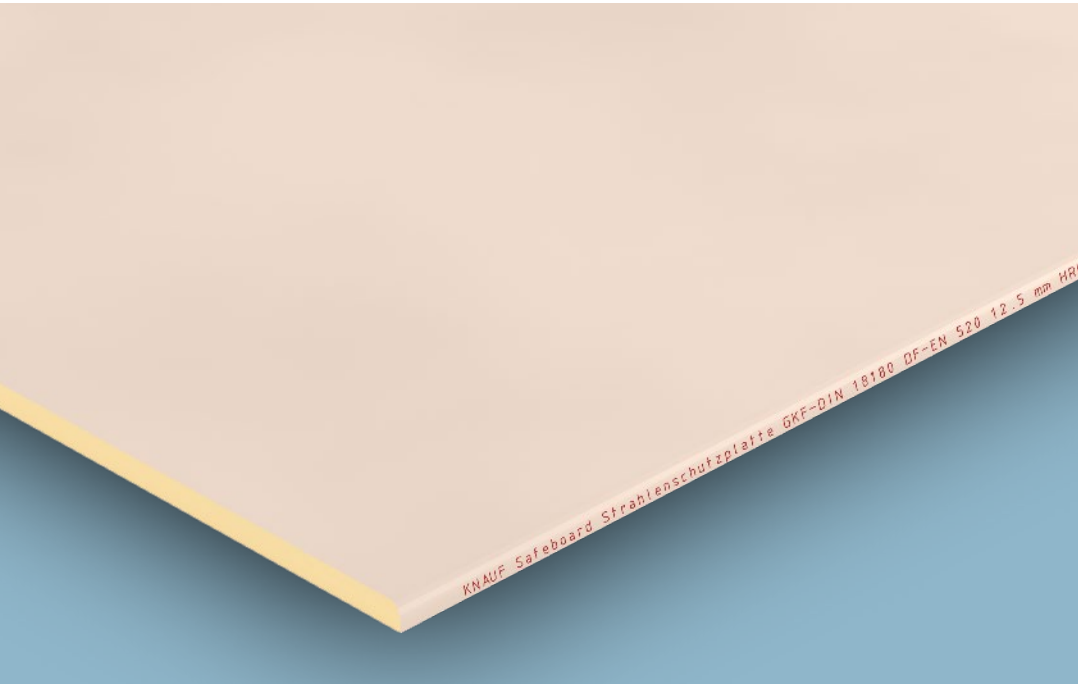

Drywall Systems

K762.de

Product Data Sheet 2022-06

Safeboard GKF

Lead-free X-Ray Shielding Board for X-Ray Equipment in Drywalling

Product description

Safeboard GKF gypsum boards with a yellow special gypsum core are for X-ray shielding in rooms with X-ray equipment. The gypsum boards are fibre-reinforced for enhanced stability and higher fire resistance quality. The board width of 625 mm ensures good handling.

- Board type
  DIN 18180 GKF
  EN 520 DF
- Colour of board liner grey
- Gypsum core colour yellow
- Rear side marking 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

- Economic protection against radiation without lead
- 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

Safeboard X-Ray Shielding Board is used in room-enclosing constructional solutions for X-Ray equipment to shield against radiation

Suitable for the following systems:

- X-Ray shielding suspended ceilings
- X-Ray shielding partitions
- X-Ray shielding furring

Design

Application

Safeboard GKF is applied just like conventional gypsum boards. However, the boards are applied horizontally on partitions, and on ceilings reduced axial spacings for the furring channels (max. 400 mm) are required.

Use Diamant screws for fastening the boards to a timber or metal stud framework.

Note	Application should be undertaken in accordance to the applicable standards and acc. to the relevant system data sheets.

Joints

Jointing with Safeboard-Spachtel filler ensures complete X-ray shielding protection. Joint tape is not required. Safeboard filler is dyed yellow for purposes of easy identification. For further details see product data sheet Safeboard Filler K467S.de.

Lead equivalence values

Number of boards	Total thickness	Tube voltage Lead equivalence[1] in mm Pb at						
	mm	60 kV	70 kV	80 kV	90 kV	100 kV	125 kV	150 kV
1	12.5	0.45	0.60	0.75	0.70	0.70	0.50	0.40
2	25	0.90	1.20	1.50	1.40	1.40	1.00	0.80
3	37.5	1.35	1.80	2.20	2.10	2.10	1.50	1.10
4	50	1.80	2.30	2.90	2.80	2.80	2.00	1.40
5	62.5	–	–	–	–	3.40	2.40	1.70
6	75	–	–	–	–	4.00	2.80	2.00

1) Intermediate values can be interpolated in linear fashion, calculation of lead equivalence acc. to DIN 6812.

One layer of Safeboard GKF is sufficient for X-ray shielding in mammography screening (35 kV).

Technical data

Description	Standard	Unit	Safeboard GKF
Board type Germany	DIN 18180	–	GKF
Board type European	EN 520	–	DF
Reaction to fire EN 13501-1	EN 520	Class	A2-s1, d0 (B)
Width dimensional tolerance	EN 520	mm	+0 / -4
Length dimensional tolerance	EN 520	mm	+0 / -5
Thickness dimensional tolerance	EN 520	mm	+0.5 / -0.5
Angularity dimensional tolerance	EN 520	mm per m board width	≤ 2.5
Thermal conductivity λ	Following EN 12664	W/(m·K)	0.26
Water vapour resistance factor μ dry	EN ISO 10456	–	10
Water vapour resistance factor μ wet	EN ISO 10456	–	4
Shrinkage and expansion air humidity per 1 % change of relative air humidity	–	mm/m	0.005 – 0.008
Shrinkage and expansion temperature per 1 Kelvin change of temperature	–	mm/m	0.013 – 0.02
Long term temperature exposure (max. limit)	–	°C	≤ 50
Density	–	kg/m^3	≥ 1400
Board weight	DIN 18180	kg/m²	≥ 17.8
Flexural breaking load longitudinal direction	DIN 18180	N	≥ 610
Flexural breaking load transverse direction	DIN 18180	N	≥ 210
Permissible bending radius, dry bending	–	m	≥ 2.75
Permissible bending radius, wet bending,	–	m	≥ 1

Product range

Description	Width	Length	Thick-ness	Edges	Delivery weight	Packaging unit	Material number	EAN
Safeboard GKF 12.5	625 mm	2500 mm	12.5 mm	HRK SSK	18 kg/m²	42 pieces / pallet 65.6 m² / pallet	00132849	4003982205629

HRK = Half-rounded long edge
SSK = Cut square edge

Sustainability and environment

Short description	Unit	Value
Requirements of the German AgBB-scheme	–	fulfilled
Complies with the requirements of the French emission class	–	A+
Requirements LEED (v4.1 BETA outside USA)	–	fulfilled
Requirements BREEAM International (New Construction v2.0)	–	Exemplary Level
Eurofins Indoor Air Comfort Gold®	–	fulfilled
Recycling share post-consumer (average value)	%	approx. 2
Environmental product declaration	–	EPD-KNA-20160111-IBA1-DE

K762.de Safeboard GKF

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Observe safety data sheet!
For safety data sheets and CE marking see
pd.knauf.de

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