

KNAUF

KNAUF PERFORATED PLASTERBOARD

Non-demountable solutions for acoustic
ceilings and walls



Build on us.



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Knauf perforated plasterboard, the smart choice for stylish acoustic solutions

Knauf perforated plasterboard is the ideal solution for large public spaces in retail centres, office complexes, hospitals, schools, showrooms, conference halls and galleries. Combining unrivalled sound absorption performance and attractive design in one easy-to-install board.

Knauf perforated plasterboard reduces noise reverberation whilst enhancing the design of any space. A variety of different perforation styles give the specifier complete creative freedom, whilst the tested and proven sound absorption performance gives complete acoustic confidence.

Build on us.

Seamless solution

Knauf Solopanel and Stratopanel with their continuous perforations to the board edge ensure a fluid monolithic appearance



Seamless aesthetics

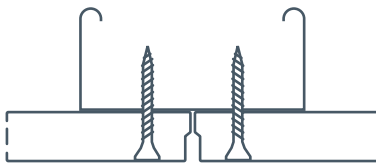
Knauf Solopanel and Stratopanel boards, when used with Knauf Uniflott, create a strong, tapeless jointing system which offers a seamless quality of finish that simply cannot be achieved with tiles.

Knauf Solopanel and Stratopanel are identified by continuous perforations to the edge of the board offering a fluid monolithic look. Solopanel is distinguished by regular arrangements of either circular Globe or square Quadril perforations whilst Stratopanel offers a unique effect through the random distribution of three sizes of circular perforations within each panel.

Knauf Solopanel and Stratopanel are supplied with the unique UFF edge profile, which has a lapped edge on all four sides of the panel, to help ensure the boards are correctly spaced during installation.

The UFF edge detail reduces the depth of the joint between boards and closes it on three sides. This leads to a stronger joint and a reduced risk of cracking whilst optimising consumption of Knauf Uniflott filler to reduce material and water use on site.

The precise board dimensions, innovative edge profile and special fixing tools ensure that the proper perforation distance is always achieved along the length of the board edges. Perforation patterns can therefore be perfectly aligned, creating a mesmerising effect over long runs.



Knauf UFF board edge profile

UFF Edge

The UFF edge features a lapped edge on all four sides of the panel.

Improved stability

Compared to the original FF edge, the reduction of the notch width by half and the simultaneous formation of the new joint with a 45° bevel increases the stability of the edge.



Improved protection

The surrounding notch edge is situated at the rear of the board, providing protection to the board face on all four sides, reducing waste from on-site edge damage.

Improved efficiency

When boards are cut on-site, three usable edges remain. The cut board can be easily used at another location within the ceiling area, or be rotated by 180° for use in the next row in the perimeter area of a room.



Regular pattern

Knauf Akustikpanel provides a unified expression through regular blocks of perforation pattern.



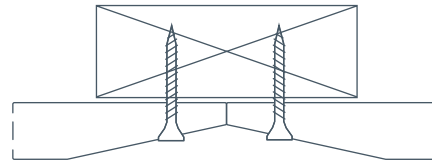
Blocks of patterns

Where a grid like design is desired but there is no time for installing a traditional lay in grid ceiling system, Knauf Akustikpanel is the perfect solution.

Knauf Akustikpanel perforated plasterboards are made up from a series of blocks of perforations creating a framed design.

Knauf Akustikpanel boards are available with a four-sided tapered edge. They are therefore be installed with traditional tape-and-joint techniques.

To offer more design choices, Knauf Akustikpanel boards are also available with white, grey or black acoustic linings.



4TE Tapered board edge profile



Acoustic performance

**Knauf perforated plasterboards absorb sound energy,
resulting in spaces with exceptional acoustic performance.**



Acoustic performance

Knauf perforated plasterboards are used in conjunction with either Knauf Wall Liner or Knauf MF Ceiling frameworks to build fully-warranted acoustic systems with unbeatable sound absorption performances. Both systems use fast construction techniques and can be specified with confidence for public areas.

How it works?

Knauf perforated and patterned boards are designed to absorb sound (reverberant) energy. The holes allow noise to pass through but its path is disrupted, taking energy out on its return and reducing echoes in a room. The clarity of speech or music can be tuned by the choice of pattern, using Knauf Insulation or adjusting the void depth.

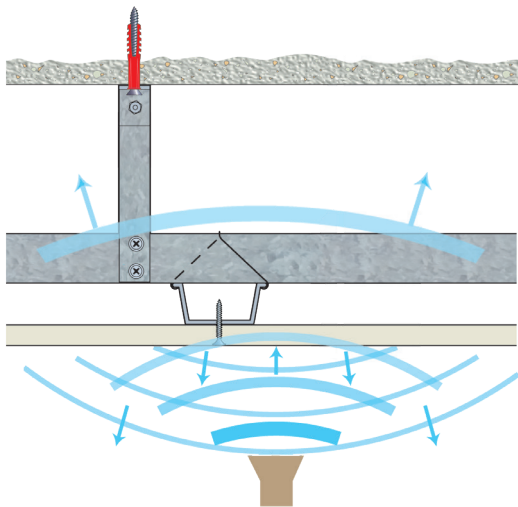
Achieving a performance class rating

The rate of absorption is classified in accordance with BS EN ISO 11654 giving each perforation pattern a class rating.

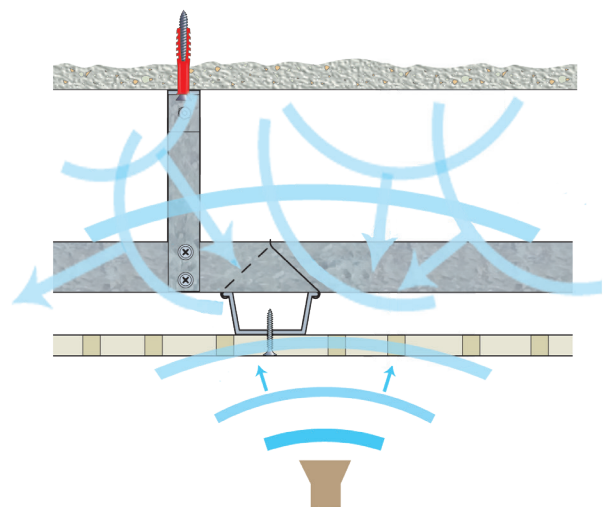
Regulations such as Approved Document E for residential, BB 93 for schools and HTM 08-01 for hospitals give guidance on the performance required.

Knauf perforated plasterboard ceiling systems achieve a minimum Class D sound absorption performance with a void depth of 200mm. Increasing the void depth and adding insulation with select boards can improve the sound absorption performance up to an industry-leading Class B.

Pages 16-19 detail the sound absorption performance of the different perforations and patterns available.



Knauf MF Ceiling with Knauf Plasterboard



Knauf MF Ceiling with Knauf Perforated Plasterboard

Knauf acoustic ceiling systems

Knauf Acoustic Ceiling systems give you the freedom to carefully control the acoustic properties of a room whilst creating stunning aesthetics.



Metal Components



Knauf MF Connecting Clip

Metal Components



Knauf MF Channel

Knauf Jointing



Knauf Uniflott

Metal Components



Knauf MF Primary Support Channel

Knauf Perforated Plasterboards



Knauf Akustikpanel



Knauf Stratopanel



Knauf Solopanel

Knauf Hangers

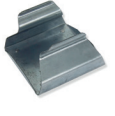


Knauf Strap Hanger



Knauf Angle Section

Other Components



Knauf Installation Kit



Knauf Screws



Knauf MF Nut and Bolt

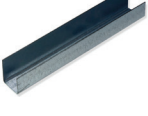
Knauf Perforated Plasterboard is also suitable for wall lining installations



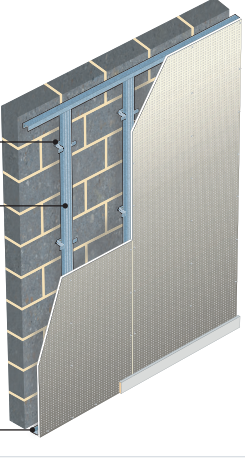
Brackets
Knauf CD 'U' Mounting Bracket



Wall Lining Stud
Knauf CD 'C' Channel



Head Track and Floor Track
Knauf CD 'U' Channel - Perimeter Support



Knauf acoustic ceiling installation

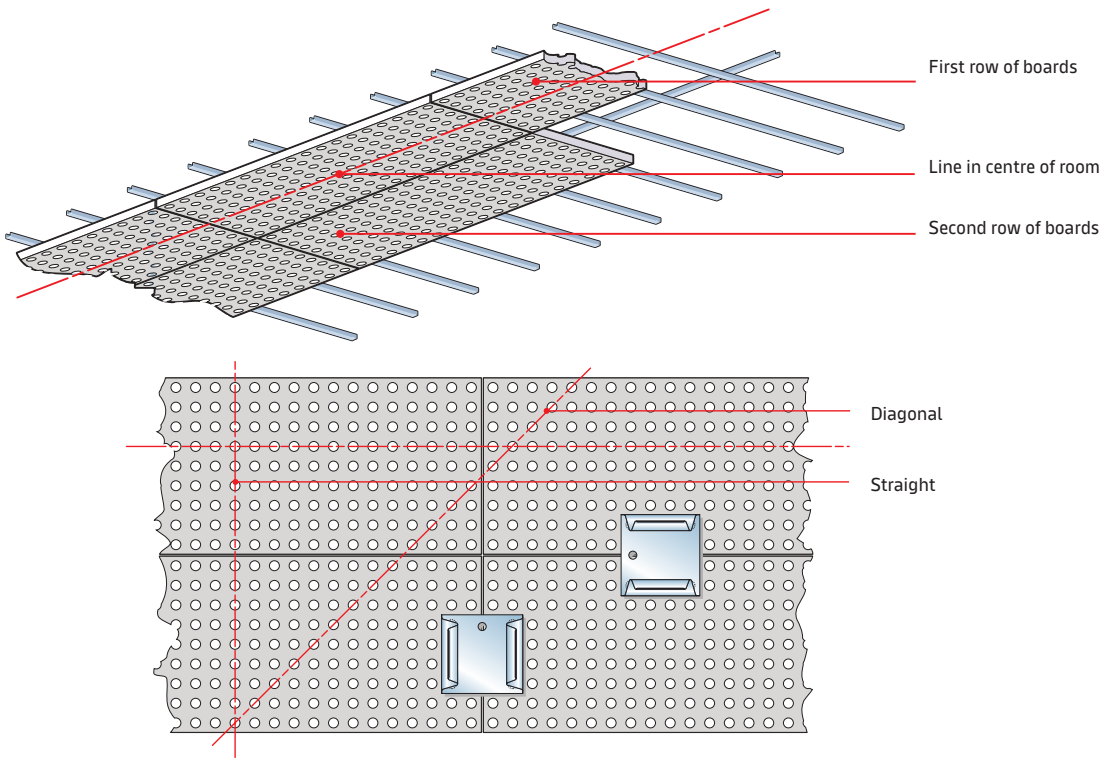
The installation of Knauf non-demountable Ceiling Systems can be broken down in to two main sections: the support frameworks for wall and ceiling applications, and the boards themselves. Perforated boards can be jointed with Knauf Uniflott for a seamless finish.

The table below details the required channel centres for Knauf CD Wall Liner and for Knauf MF Ceiling Channels to ensure that the correct channel spacings are used to suit the specific board sizes.

For full MF Ceiling and CD Wall Liner installation procedures please refer to the Knauf Complete Drywall Manual.

Perforation		Size		Channel Centres		Weight
		Board Length (mm)	Board Width (mm)	Walls (mm)	Ceilings (mm)	Board Weight & Ceiling System
Solopanel one size of Globe perforation	G8/18	1998	1188	396	333.0	≤ 15 kg/m ²
	G15/30	1980	1200	400	330.0	≤ 15 kg/m ²
Solopanel two sizes of Globe perforation	G8/12/50	2000	1200	400	333.3	≤ 15 kg/m ²
	G12/20/66	1980	1188	396	330.0	≤ 15 kg/m ²
Solopanel Quadril perforations	Q8/18	1998	1188	396	333.0	≤ 15 kg/m ²
	Q12/25	2000	1200	400	333.3	≤ 15 kg/m ²
Stratopanel random Globe perforations	G8/15/20	2000	1200	400	312.5	≤ 15 kg/m ²
	G12/20/35	2000	1200	400	312.5	≤ 15 kg/m ²
Akustikpanel Quadril	BQ8	2400	1200	400	300.0	≤ 15 kg/m ²

Note: Always control the overall image of the building line through the straights and diagonals of the rows of perforations. Lay perforated boards across the joints.



Installing Knauf perforated plasterboards on a wall liner system

Knauf CD Wall Liner is specifically designed for use with Knauf perforated boards to create the rigidity required for the seamless finish. The system provides a variable stand-off from the wall of between 30mm and 125mm.



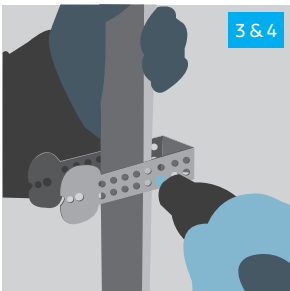
1. Fixing Knauf CD 'U' Channel to floor and soffit

Mark guidelines on the floor and soffit to establish the positions of the floor and head tracks relative to the stand-off distance required. Mark vertical guidelines on the background to establish the Knauf CD 'C' Channel positions (see table on page 13). Knauf CD 'U' Channels should be used for the head and base along the guidelines using fixings appropriate for the background. Fix at maximum 600mm centres.



2. Positioning of Knauf CD 'U' Mounting Brackets

Mark the wall with the location of Knauf CD 'U' Mounting Brackets in line with the channel guidelines and at maximum 900mm vertical centres. Fix Knauf CD 'U' Mounting Brackets to the background, at the marked positions, using fixings appropriate for the background.



3. Positioning of Knauf CD 'C' Channels

Offer up the Knauf CD 'C' Channels to engage with the Knauf CD 'U' Mounting Brackets and in the floor and head tracks. Extend the length of Knauf CD 'C' Channels, where necessary, by using Knauf CD 'C' Channel Connectors. Adjust the channels for position and alignment.

4. Fixing Knauf CD 'C' Channel

Secure the Knauf CD 'C' Channels to the Knauf CD 'U' Mounting Brackets using Knauf Waferhead Jackpoint Screws. Depending on the stand-off distance, bend back the legs of the crimped 'U' Mounting Brackets so as not to obstruct the fixing of the Knauf perforated board. Fix Knauf Angle Sections at external corners and reveals where appropriate.



5. Fixing Knauf perforated plasterboards

Start at one end of the lining and work along. Fix the boards using 25mm Knauf Drywall Screws (self tapping) at 300mm centres, reduced to 200mm at the corners placed carefully between the perforations. Knauf perforated plasterboards should be fixed parallel to the vertical Knauf CD 'C' Channels. Offer up the next board ensuring that the boards are correctly lined up and fix. Continue fixing boards in this manner until the wall is complete.

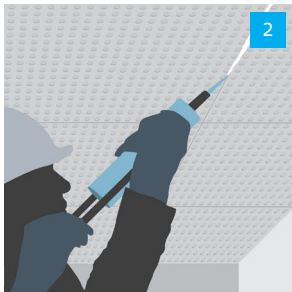
Installing Knauf perforated plasterboards - FF & UFF edge

Knauf perforated plasterboards with FF or UFF edges, when used with Knauf Uniflott, result in a strong tapeless jointing system providing a high quality seamless finish.



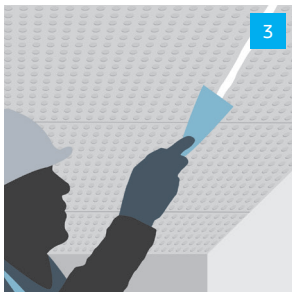
1. Fixing Knauf perforated plasterboards

Align the first board in the middle of the ceiling and fix using 25mm Knauf Drywall Screws (self tapping) at max. 200mm centres. Offer up the next board ensuring that the board pattern is aligned correctly, using Knauf Installation Kit aids as necessary. Continue fixing boards along the long edge and then with the short edge, until the ceiling is finished.



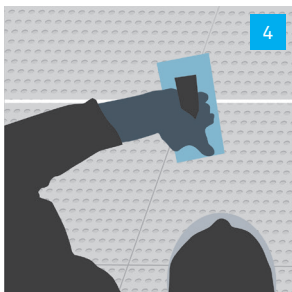
2. Jointing using Knauf Uniflott

Cut the nozzle of the applicator to suit. Using it with a standard sealant gun fully fill the joint. It will set in approximately 90 minutes so ensure the applicator has been rinsed and cleaned.



3. Carefully remove the excess

When the jointing material has stiffened in the joints remove any excess with a jointing knife, being careful not to damage the paper. To remove Knauf Uniflott push the jointing knife away from you. Once the material has fully set apply a second coat with a standard jointing knife in order to ensure a flush joint is achieved. This stage is critical to achieving a perfect seamless finish, so care should be taken to ensure the joints are completely filled, applying a second coat if necessary.



4. Sanding

Once the joints are completely filled and set, sand to a flat and even finish.



5. Decoration

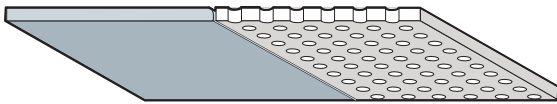
Apply an undiluted coat of Knauf Wallboard Primer to the entire surface to equalise the suction levels between the joints and the boards. The surface can then be decorated using a foam rubber roller.

Frieze options

Knauf perforated plasterboards may be used in conjunction with standard wallboard to create a range of frieze options.

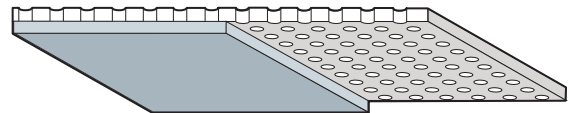
1. Flush-jointing to standard plasterboard

Prior to fixing the Knauf perforated plasterboards fix a minimum 100mm wide strip of 12.5mm Square Edge Knauf Wallboard to the perimeter framework. Chamfer the edge of the Wallboard where it meets the board and leave a 3mm gap ready for jointing with Knauf Uniflott.



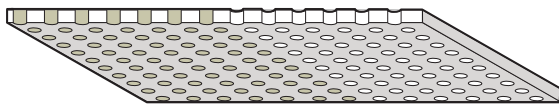
3. Raised feature using plasterboard

Fix the perforated plasterboards as described above, continuing to the perimeter. To create the raised frieze, fix a strip of 12.5mm Square Edge Knauf Wallboard, at least 100mm wide, on top of the perforated plasterboards, through to the perimeter framework.



2. Flush-jointing to perforated plasterboards

Fix the perforated plasterboards as described above continuing to the perimeter. Mark out the desired position of the frieze with a chalk line, and fix masking tape to the inside. Any holes remaining within the frieze area can then be filled with Knauf Uniflott to create a smooth surface.





Knauf globe seamless design

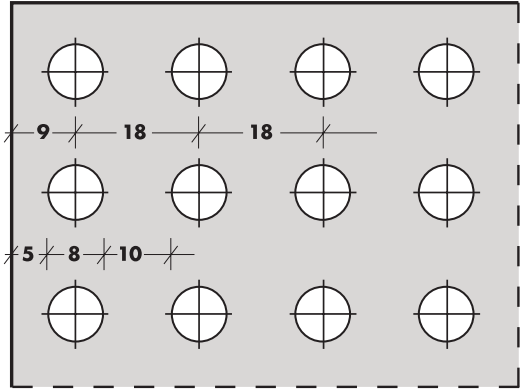
Globe 8/18: Solopanel

Board size
Width 1188mm
Length 1998mm
Weight 8.1 kg/m²

Solopanel UFF Edge Material Number
White or Black Lining:
539622

Void Depth	Acoustic Resonance (Hz)								Performance	
	NRC	α _w	125	250	500	1000	2000	4000	Class	
65mm	0.55	0.60	0.15	0.30	0.60	0.75	0.65	0.60	Class C	
65mm with insulation*	0.65	0.70	0.35	0.55	0.70	0.75	0.65	0.65	Class C	
200mm	0.60	0.60	0.45	0.60	0.70	0.60	0.55	0.65	Class C	
200mm with insulation*	0.65	0.65	0.50	0.65	0.70	0.65	0.60	0.70	Class C	

Area of perforation 15.5%



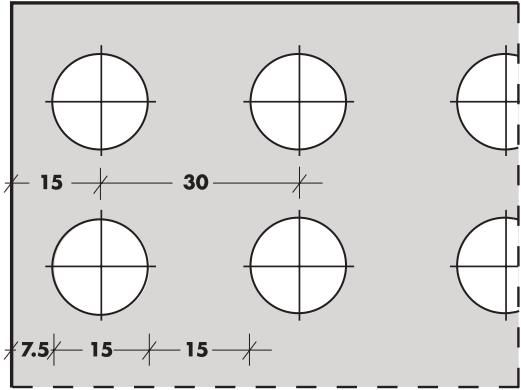
Globe 15/30: Solopanel

Board size
Width 1200mm
Length 1980mm
Weight 7.8 kg/m²

Solopanel UFF Edge Material Number
White or Black Lining:
621350

Void Depth	Acoustic Resonance (Hz)								Performance	
	NRC	α _w	125	250	500	1000	2000	4000	Class	
65mm	0.60	0.60	0.15	0.30	0.60	0.80	0.65	0.60	Class C	
65mm with insulation*	0.70	0.75	0.30	0.55	0.80	0.80	0.65	0.65	Class C	
200mm	0.65	0.65	0.45	0.65	0.75	0.65	0.60	0.60	Class C	
200mm with insulation*	0.70	0.70	0.50	0.70	0.75	0.70	0.65	0.65	Class C	

Area of perforation 19.6%



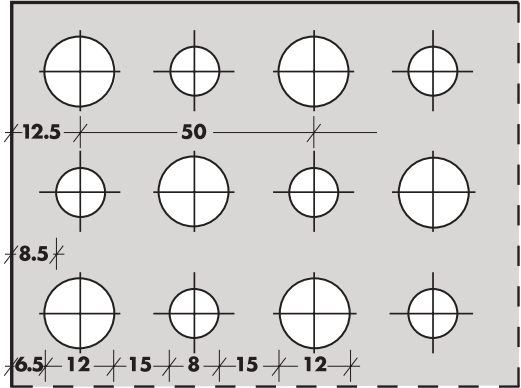
Globe 8/12/50: Solopanel

Board size
Width 1200mm
Length 2000mm
Weight 8.4 kg/m²

Solopanel UFF Edge Material Number
White Lining 612611
Black Lining: 611754

Void Depth	Acoustic Resonance (Hz)								Performance	
	NRC	α _w	125	250	500	1000	2000	4000	Class	
65mm	0.55	0.60	0.15	0.30	0.60	0.70	0.60	0.50	Class C	
65mm with insulation*	0.65	0.65	0.35	0.55	0.70	0.70	0.60	0.50	Class C	
200mm	0.60	0.60	0.45	0.60	0.65	0.60	0.50	0.55	Class C	
200mm with insulation*	0.60	0.65	0.50	0.65	0.65	0.65	0.55	0.55	Class C	

Area of perforation 13.1%



Knauf globe seamless design

Random Globe 12/20/66: Solopanel

Board size

Width 1188mm
Length 1980mm
Weight 7.6 kg/m²

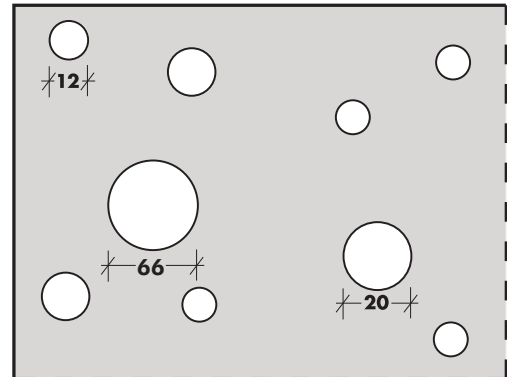
Solopanel UFF

EdgeMaterial Number

White or Black Lining:
621357

Void Depth	Acoustic Resonance (Hz)								Performance
	NRC	α _w	125	250	500	1000	2000	4000	
65mm	0.55	0.60	0.10	0.30	0.60	0.80	0.60	0.55	Class C
65mm with insulation*	0.70	0.70	0.30	0.55	0.80	0.85	0.60	0.65	Class C
200mm	0.65	0.60	0.45	0.65	0.80	0.65	0.50	0.60	Class C
200mm with insulation*	0.70	0.70	0.55	0.70	0.80	0.75	0.60	0.65	Class C

Area of perforation 19.6%



Knauf quadril seamless design

Quadril 8/18: Solopanel

Board size

Width 1188mm
Length 1998mm
Weight 7.7 kg/m²

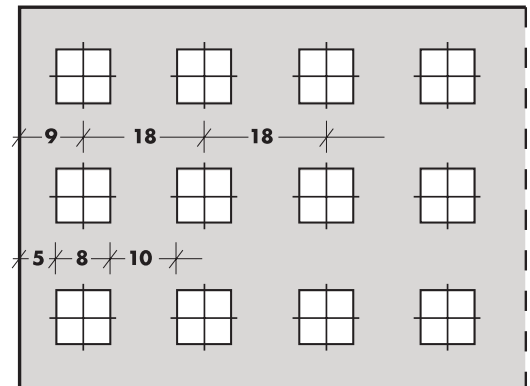
Solopanel UFF

EdgeMaterial Number

White or Black Lining:
539651

Void Depth	Acoustic Resonance (Hz)								Performance
	NRC	α _w	125	250	500	1000	2000	4000	
65mm	0.60	0.60	0.10	0.30	0.60	0.80	0.70	0.65	Class C
65mm with insulation*	0.70	0.75	0.30	0.55	0.80	0.80	0.70	0.75	Class C
200mm	0.65	0.65	0.45	0.65	0.75	0.65	0.60	0.70	Class C
200mm with insulation*	0.70	0.75	0.55	0.70	0.75	0.70	0.70	0.75	Class C

Area of perforation 19.8%



Quadril 12/25: Solopanel

Board size

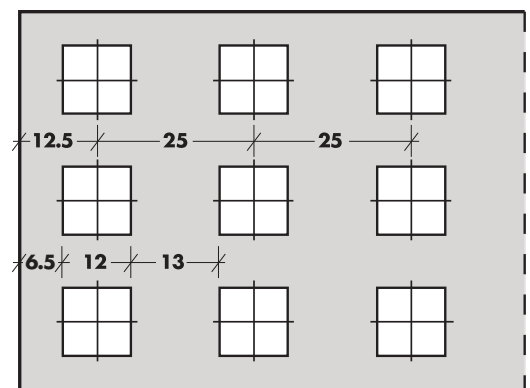
Width 1200mm
Length 2000mm
Weight 7.4 kg/m²

Solopanel UFF Edge Material Number

White or Black Lining:
539661

Void Depth	Acoustic Resonance (Hz)								Performance
	NRC	α _w	125	250	500	1000	2000	4000	
65mm	0.60	0.60	0.10	0.30	0.60	0.80	0.75	0.60	Class C
65mm with insulation*	0.75	0.80	0.30	0.60	0.85	0.90	0.75	0.70	Class B
200mm	0.70	0.70	0.50	0.70	0.80	0.70	0.65	0.65	Class C
200mm with insulation*	0.75	0.80	0.55	0.75	0.80	0.75	0.75	0.75	Class B

Area of perforation 23.0%



Knauf random globe seamless design

Random Globe 8/15/20: Stratopanel

Board size

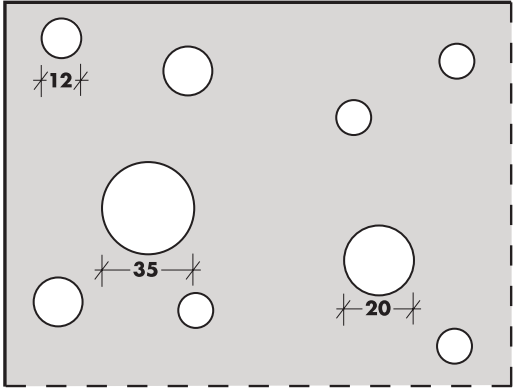
Width 1200mm
Length 1875mm
Weight 8.7 kg/m²

Stratopanel UFF Edge
Material Number

White or Black Lining:
539670

Void Depth	Acoustic Resonance (Hz)								Performance	
	NRC	α _w	125	250	500	1000	2000	4000	Class	
65mm	0.45	0.50	0.15	0.30	0.50	0.60	0.45	0.45	Class D	
65mm with insulation*	0.50	0.50	0.35	0.45	0.55	0.55	0.40	0.45	Class D	
200mm	0.50	0.50	0.40	0.50	0.55	0.50	0.40	0.45	Class D	
200mm with insulation*	0.50	0.50	0.45	0.50	0.55	0.50	0.40	0.50	Class D	

Area of perforation 9.9%



Random Globe 12/20/35: Stratopanel

Board size

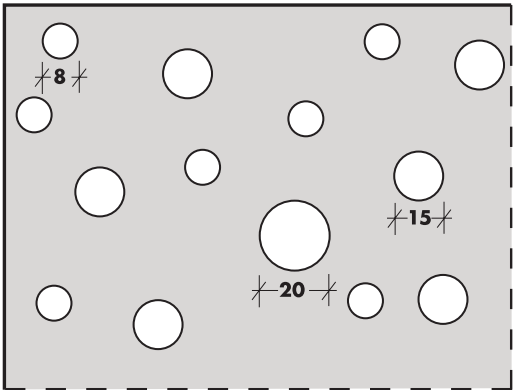
Width 1200mm
Length 1875mm
Weight 8.7 kg/m²

Stratopanel UFF
EdgeMaterial Number

White or Black Lining:
621359

Void Depth	Acoustic Resonance (Hz)								Performance	
	NRC	α _w	125	250	500	1000	2000	4000	Class	
65mm	0.45	0.45	0.15	0.30	0.55	0.55	0.40	0.35	Class D	
65mm with insulation*	0.50	0.45	0.35	0.50	0.65	0.55	0.35	0.35	Class D	
200mm	0.50	0.45	0.40	0.50	0.60	0.45	0.35	0.35	Class D	
200mm with insulation*	0.50	0.45	0.45	0.55	0.60	0.50	0.35	0.40	Class D	

Area of perforation 9.8%



Knauf akustikpanel - quadril block design

Akustikpanel Quadril: Square Type B8

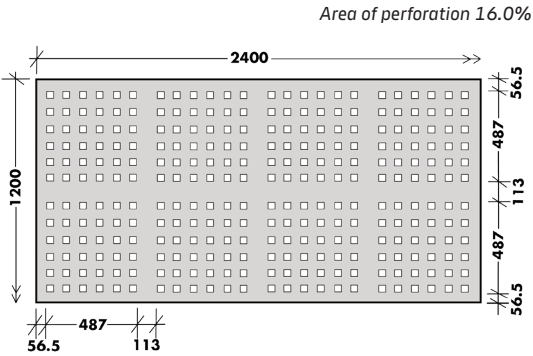
Board size

Width 1200mm
Length 2400mm
Weight 8.7 kg/m2

4TE Edge Material Number

White Lining 432055
Black Lining 432102
Grey Lining 432103

Void Depth	Acoustic Resonance (Hz)								Performance
	NRC	αw	125	250	500	1000	2000	4000	
65mm	0.60	0.60	0.15	0.35	0.60	0.70	0.60	0.45	Class C
65mm with insulation*	0.70	0.65	0.35	0.60	0.75	0.70	0.60	0.50	Class C
200mm	0.65	0.60	0.45	0.65	0.75	0.60	0.55	0.50	Class C
200mm with insulation*	0.70	0.65	0.50	0.70	0.70	0.65	0.60	0.55	Class C





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