PAVAFLEX™
PAVACELL™ DB
PAVATEXTIL™ PA45

Acoustic Applications
Partitions
Absorption

Multifunctional Insulation

pavatex
by SOPREMA

Pavatex™ Insulation Solutions are a reliable option for both thermal and acoustic insulation, widely used in new builds and retrofit projects throughout the UK.

Known for their exceptional quality and proven effectiveness, Pavatex™ products are trusted by house builders, commercial developers, housing associations, and local authorities.

PAVATEX™

Insulation Solutions

Thermal Performance

Ensuring good thermal performance is essential when constructing a new building or renovating an existing one, as it significantly affects energy efficiency, comfort, and sustainability.

Effective thermal performance helps maintain a stable indoor temperature, minimising the need for excessive heating in winter and cooling in summer, helping to reduce a buildings energy consumption and utility costs.

Therefore, achieving good thermal performance is crucial for creating comfortable, cost-effective, and long-lasting homes that comply with modern building standards.

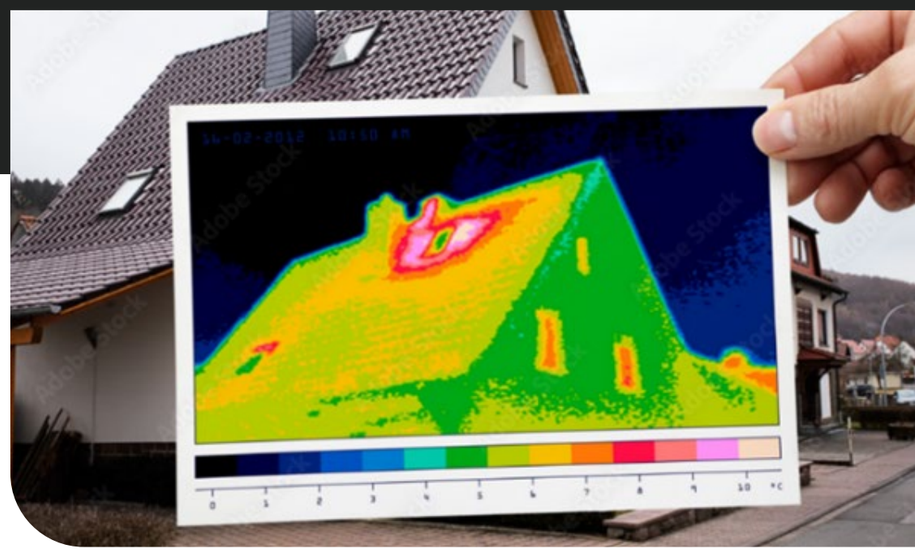
Breathability and Overheating Control

When specifying thermal and acoustic insulation in a new building or renovation project, it is crucial to address building breathability and overheating control to ensure a comfortable and healthy indoor environment. The average household generates over 11.5 litres of moisture daily. Much like a high-performance rain jacket, the building's exterior shell needs to repel rain while allowing internal moisture to escape.

Proper breathability allows for the natural regulation of moisture, preventing condensation and mould growth, which can damage the building structure and affect occupants' health.

Overheating control is equally important, especially in well-insulated buildings, to avoid excessive indoor temperatures that can lead to discomfort, higher energy consumption for mechanical cooling equipment, and reduced overall building performance.

Pavatex™ Insulation Solutions, with their unique thermal mass which absorbs and stores solar heat, help to effectively reduce the risk of summertime overheating and maintaining a comfortable indoor temperature year-round. By carefully balancing insulation with breathability and effective heat management, buildings can achieve optimal energy efficiency, comfort, and durability.



PAVATEX™

Internal Partition Acoustic Performance

Acoustic insulation helps reduce the transmission of sound between rooms and from external sources like traffic, neighbours, or outdoor activities. This is crucial for creating a comfortable and peaceful indoor environment, particularly in urban or densely populated areas.

By preventing sound from traveling between walls, floors, and ceilings, acoustic insulation enhances the overall comfort and privacy of a home, school, or healthcare environment. This is especially important in buildings or homes with multiple levels, where noise can easily travel from one area to another.

Dwellings

In England and Wales, Approved Document E mandates that all internal walls must achieve a minimum sound insulation of 40 Rw dB. This requirement applies to new walls constructed in both dwellings undergoing a material change of use and new extensions to existing dwellings. In Scotland, the minimum sound insulation requirement is 43 Rw dB.

Schools

Building Bulletin 93 (December 2014), "The Acoustic Design of Schools," specifies performance standards for airborne sound insulation between different spaces. Each room is classified according to its intended use, establishing the sound insulation requirements for partitions.

Hospitals

The Healthcare Technical Memorandum HTM 08-01 (formerly HTM 2045) outlines privacy standards based on room type, from which specific performance requirements for partitions can be determined.

SOPREMA Pavatex™ insulation products enhance acoustic comfort by either blocking sound transmission through structural elements or by absorbing sound at the surface.

Pavaflex™, Pavatextile™ PA45, and Pavacell dB insulation slabs are optimised for sound absorption, achieving up to Class A performance levels.

PAVATEX™

Supporting Sustainable Building Practices

Pavatex™ Insulation Solutions have been developed to support sustainable building practices.

Pavaflex™ is made from natural wood fibres sourced from sustainably managed forests, a renewable resource, whereas Pavatextile™ PA45 and Pavacell™ dB are both produced from recycled textiles, reducing waste that would otherwise go to landfills and promoting the circular economy by repurposing materials.

The natural components in these products, like wood fibres and recycled textiles, are biodegradable, recyclable, and free from harmful chemicals. Additionally, they provide excellent thermal and acoustic performance, enhancing energy efficiency and comfort whilst helping to minimise a building's carbon footprint. Overall, these insulation products combine sustainability with high performance, making them ideal for eco-conscious building projects.

Fire Performance Levels that Comply with UK Building Regulations

Fire performance for wall partitions is determined according to the relevant Building Regulations, which may specify distinct fire performance criteria for partitions between certain room types. For residential properties, requirements are governed by Part E of the Building Regulations. Educational facilities follow the guidelines set in Building Bulletin 100, while healthcare buildings adhere to the Health Technical Memorandum (HTM) 05-03.

Pavaflex™, Pavatextile™ PA45, and Pavacell dB are rated as Euroclass E for fire performance, indicating they have limited combustibility and are appropriate for use in certain applications where fire safety regulations permit this classification.

NB: Any specifier of Pavaflex™, Pavatextile™ PA45, and Pavacell dB insulation must thoroughly review the fire performance requirements of these products before specifying them for any thermal or acoustic building insulation applications. It is essential to ensure that the products meet all applicable fire safety regulations and standards for the intended use.

Expert Advice

Our dedicated technical support team is on hand to guide you in selecting the ideal product for your specific project needs, ensuring optimal thermal, moisture, acoustic, and overheating control to meet your building's unique requirements.

Pavaflex™

Natural Wood Fibre Insulation for Versatile Applications

Pavaflex™ is a flexible thermal insulation board made from natural wood fibre, ideal for use between rafters, girders, and beams in floors, walls, and roofs. Its excellent slump resistance and ease of handling make it highly suitable for timber frame constructions.

Offering superior thermal performance and heat retention, Pavaflex™ provides an efficient and reliable insulation solution.

Applications	
Sloped Roofs	Between Rafters
Walls	Between Studs
Loft Floors	Between Rafters

Pavaflex™ Product Presentations

Article Number	Thickness (mm)w	Edge	Dimensions (mm)	Pallet (m2)	Boards/ Pallet	Pallet (kg)	Density (Kg/m3)	À	Thermal Resistance (Rd) [m2.K/W]
157239	40 (UK only)	Straight	1220 x 375	82.4	180	195	50	0.038	1.05
112962	40	Straight	1220 x 575	84.2	120	183	50	0.038	1.05
112963	50	**Straight**	1220 x 575	63.1	90	173	50	0.038	1.30
157240	60 (UK only)	**Straight**	1220 x 375	54.9	120	195	50	0.038	1.55
112964	60	**Straight**	1220 x 575	56.1	80	183	50	0.038	1.55
112965	80	**Straight**	1220 x 575	42.1	60	183	50	0.038	2.10
112966	100	**Straight**	1220 x 575	33.7	48	183	50	0.038	2.60
112967	120	**Straight**	1220 x 575	28.1	40	183	50	0.038	3.15
112968	140	**Straight**	1220 x 575	22.4	32	172	50	0.038	3.65
112969	160	**Straight**	1220 x 575	21.0	30	183	50	0.038	4.20
112970	180	**Straight**	1220 x 575	16.8	24	167	50	0.038	4.70
112971	200	**Straight**	1220 x 575	16.8	24	183	50	0.038	5.25
112972	220	**Straight**	1220 x 575	14.0	20	169	50	0.038	5.75
112973	240	**Straight**	1220 x 575	14.0	20	183	50	0.038	6.30

Pavacell™ dB

Outstanding Acoustic Insulation Performance

Pavacell™ dB panels are made from recycled materials, such as paper and used cotton textiles like denim, turning waste into effective thermal and acoustic insulation.

By using reclaimed materials, Pavacell™ dB not only helps to reduce landfill waste but also conserves natural resources. The production process requires less energy compared to traditional methods, such as those used for mineral wool insulation.

These panels are lightweight, highly flexible, and easy to cut to various shapes and sizes, making them easy to handle and simple to install, offering a practical solution for modern construction needs

Applications	
Ceiling	Between Rafters
Walls	Between Studs
Floors	Between Joists
Loft Floors	Between Rafters

Product Technical Information

Pavacell® dD Panel Dimensions	
Thickness	45 mm
Width	600 mm
Length	1,350 mm

Pavacell® dD Technical Attributes	
Density	35 kg/m^3
VOC Emissions	A+

Pavatextil™ PA45

High-Performance Cotton Fibre-Based Insulation

Pavatextil™ PA45 is a thermo-acoustic insulation solution made from 85% recycled fibres, with a minimum of 70% cotton content sourced from upcycled textiles like jeans and velvet. Blended with 15% polyester fibres, Pavatextil™ PA45 provides outstanding performance in both thermal and acoustic insulation, making it an ideal choice for builders and renovators.

Lightweight, soft, highly flexible, and easy to cut to specific shapes and sizes, Pavatextil™ PA45 insulation boards are suitable for installation between timber or metal frameworks in walls, sloped roofs, and loft floors.

Applications	
Sloped Roofs	Between Rafters
Walls	Between Studs
Loft Floors	Between Rafters

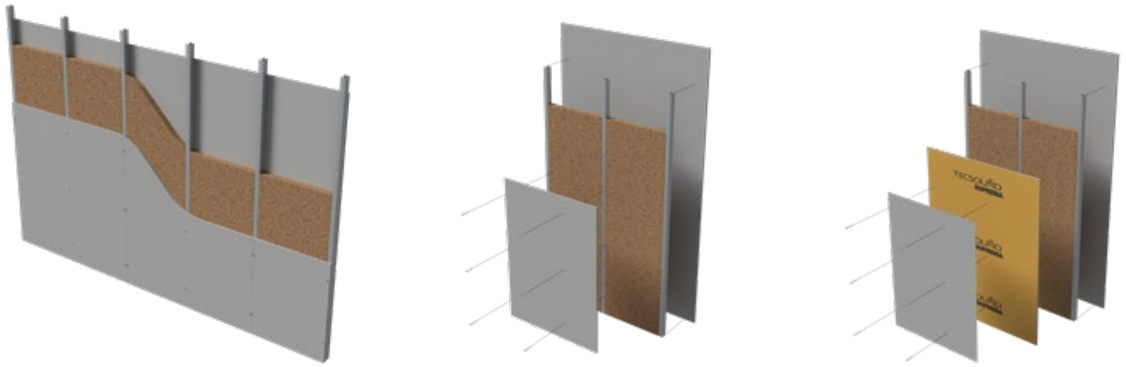
Product Technical Information

Packaging board						
Board Thickness (mm)	**Boards/Pallet**	**Board/Pack**	**Dimensions (mm)**	**m^2/pallet (m^2)**	**m^2/pack (m^2)**	**Thermal Resistance (Rd) [m2.K/W]**
54	104	13	1200 x 600	74.88	9.36	1.15

Packaging Roll				
Board Thickness (mm)	**Boards/Pallet**	**Dimensions (mm)**	**m^2/pallet (m^2)**	**Thermal Resistance (Rd) [m2.K/W]**
20	8	14.00 x 1.20	134.40	0.50

Pavaflex™ 50mm Acoustic Solutions

for Internal Metal Stud Partition Walls



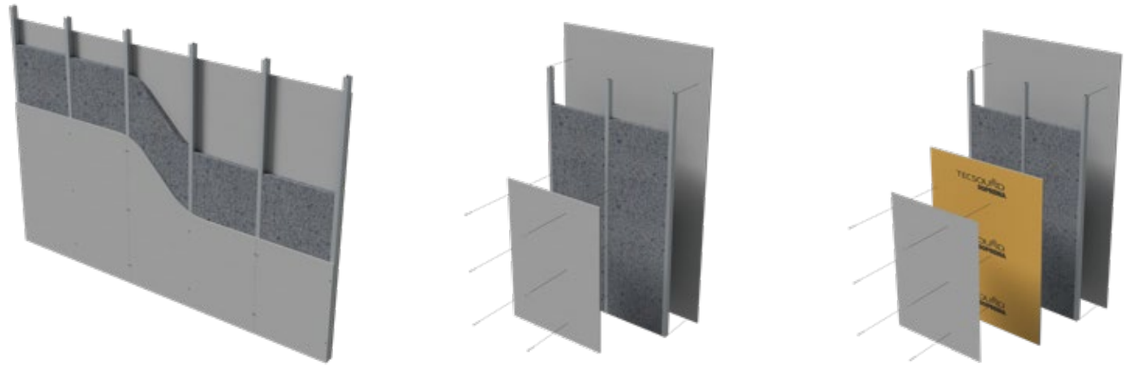
Pavaflex™ 50mm - Rw 41 dB	
Lightweight 50mm Metal Partition Rw 41 dB, according to BS EN ISO 717-1:2020	
Studs	50mm metal C studs at 600 centres
Build-up	1 layer of 12.5mm standard plasterboard each side (8.3 kg/m²)
Insulation	Pavaflex™ 50mm natural wood fibre
Weighted Sound Reduction	Rw 41 dB
Maximum Height	2.5 meters
Nominal Wall Thickness	75mm
Sample Weight	19.5 kg/m²
α w 0.80(H) , according to BS EN ISO 11654:1997	

Pavaflex™ 50mm - Rw 44 dB	
Lightweight 50mm Metal Partition Rw 44 dB, according to BS EN ISO 717-1:2020	
Studs	50mm metal C studs at 600 centres
Build-up	1 layer of 12.5mm acoustic plasterboard each side (11.5kg/m²)
Insulation	Pavaflex™ 50mm natural wood fibre
Weighted Sound Reduction	Rw 44 dB
Maximum Height	2.5 meters
Nominal Wall Thickness	75mm
Sample Weight	25.9 kg/m²
α w 0.80(H) , according to BS EN ISO 11654:1997	

Pavaflex™ 50mm - Rw 47 dB	
Lightweight 50mm Metal Partition Rw 47 dB, according to BS EN ISO 717-1:2020	
Studs	50mm metal C studs at 600 centres
Build-up	1 layer of 12.5mm standard plasterboard each side (8.3 kg/m²) 1 layer of Tecsound S100 one side (10 kg/m²)
Insulation	Pavaflex™ 50mm natural wood fibre
Weighted Sound Reduction	Rw 47 dB
Maximum Height	2.5 meters
Nominal Wall Thickness	80mm
Sample Weight	29.5 kg/m²
α w 0.80(H) , according to BS EN ISO 11654:1997	

Pavacell™ dB Acoustic Solutions

for Internal Metal Stud Partition Walls



Pavacell™ dB 45mm - Rw 42 dB	
Lightweight 50mm Metal Partition Rw 42 dB, according to BS EN ISO 717-1:2020	
Studs	50mm metal C studs at 600 centres
Build-up	1 layer of 12.5mm standard plasterboard each side (8.3 kg/m²)
Insulation	Pavacell™ DB 45mm natural insulation
Weighted Sound Reduction	Rw 42 dB
Maximum Height	2.5 meters
Nominal Wall Thickness	75mm
Sample Weight	19.3 kg/m²
α w 0.85 (H), according to BS EN ISO 11654:1997	

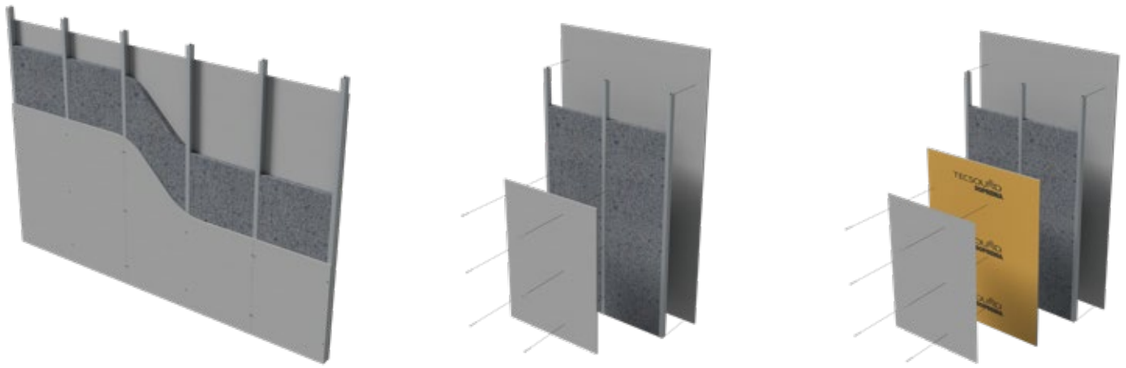
Pavacell™ dB 45mm - Rw 45 dB	
Lightweight 50mm Metal Partition Rw 44 dB, according to BS EN ISO 717-1:2020	
Studs	50mm metal C studs at 600 centres
Build-up	1 layer of 12.5mm acoustic plasterboard each side (11.5kg/m²)
Insulation	Pavacell™ DB 45mm natural insulation
Weighted Sound Reduction	Rw 45 dB
Maximum Height	2.5 meters
Nominal Wall Thickness	75mm
Sample Weight	25.7 kg/m²
α w 0.85 (H), according to BS EN ISO 11654:1997	

Pavacell™ dB 45mm - Rw 48 dB	
Lightweight 50mm Metal Partition Rw 48 dB, according to BS EN ISO 717-1:2020	
Studs	50mm metal C studs at 600 centres
Build-up	1 layer of 12.5mm standard plasterboard each side (8.3 kg/m²) 1 layer of Tecsound S100 one side (10 kg/m²)
Insulation	Pavacell™ DB 45mm natural insulation
Weighted Sound Reduction	Rw 48 dB
Maximum Height	2.5 meters
Nominal Wall Thickness	80mm
Sample Weight	29.3 kg/m²
α w 0.85 (H), according to BS EN ISO 11654:1997	

NB. The above confirmed sound reduction values have been measured in a laboratory environment. The performance of each build-up is subject to using the correct installation method. Please contact us for further information.

Pavatextil™ Acoustic Solutions

for Internal Metal Stud Partition Walls



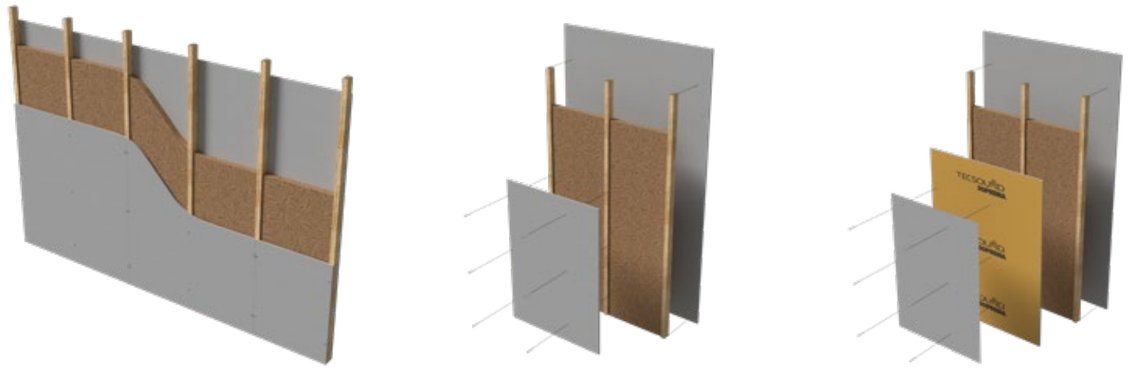
Pavatextil™ PA45 - 45mm - Rw 43 dB	
Lightweight 50mm Metal Partition Rw 43 dB, according to BS EN ISO 717-1:2020	
Studs	50mm metal C studs at 600 centres
Build-up	1 layer of 12.5mm standard plasterboard each side (8.3 kg/m²)
Insulation	Pavatextil™ PA45 - 45mm natural insulation
Weighted Sound Reduction	Rw 43 dB
Maximum Height	2.5 meters
Nominal Wall Thickness	75mm
Sample Weight	18.9 kg/m²
α w 0.90 (H), according to BS EN ISO 11654:1997	

Pavatextil™ PA45 - 45mm - Rw 46 dB	
Lightweight 50mm Metal Partition Rw 46 dB, according to BS EN ISO 717-1:2020	
Studs	50mm metal C studs at 600 centres
Build-up	1 layer of 12.5mm acoustic plasterboard each side (11.5kg/m²)
Insulation	Pavatextil™ PA45 - 45mm natural insulation
Weighted Sound Reduction	Rw 46 dB
Maximum Height	2.5 meters
Nominal Wall Thickness	75mm
Sample Weight	25.3 kg/m²
α w 0.90 (H), according to BS EN ISO 11654:1997	

Pavatextil™ PA45 - 45mm - Rw 48 dB	
Lightweight 50mm Metal Partition Rw 48 dB, according to BS EN ISO 717-1:2020	
Studs	50mm metal C studs at 600 centres
Build-up	1 layer of 12.5mm standard plasterboard each side (8.3 kg/m²) 1 layer of Tecsound S100 one side (10 kg/m²)
Insulation	Pavatextil™ PA45 - 45mm natural insulation
Weighted Sound Reduction	Rw 48 dB
Maximum Height	2.5 meters
Nominal Wall Thickness	80mm
Sample Weight	28.9 kg/m²
α w 0.90 (H), according to BS EN ISO 11654:1997	

Pavaflex™ 50mm Acoustic Solutions

for Internal Timber Stud Partition Walls



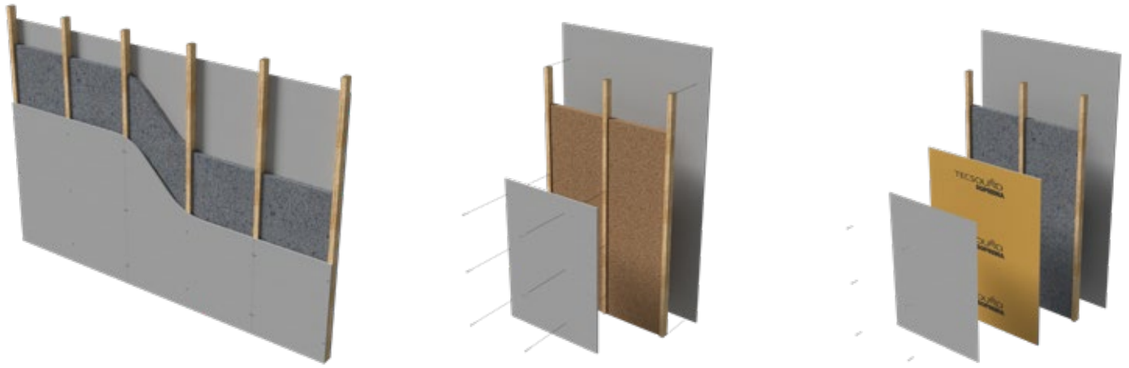
Pavaflex™ 50mm - Rw 43 dB	
Lightweight 63mm Timber Partition Rw 43 dB, according to BS EN ISO 717-1:2020	
Studs	63mm x 38mm timber studs at 600 centres
Build-up	1 layer of 12.5mm standard plasterboard each side (8.3 kg/m²)
Insulation	Pavaflex™ 50mm natural wood fibre
Weighted Sound Reduction	Rw 43 dB
Maximum Height	2.4 meters
Nominal Wall Thickness	88mm
Sample Weight	25.9 kg/m²
α w 0.80(H) , according to BS EN ISO 11654:1997	

Pavaflex™ 50mm - Rw 49 dB	
Lightweight 63mm Timber Partition Rw 49 dB, according to BS EN ISO 717-1:2020	
Studs	63mm x 38mm timber studs at 600 centres
Build-up	1 layer of 12.5mm standard plasterboard each side (8.3 kg/m²) 1 layer of Tecsound S100 one side (10 kg/m²)
Insulation	Pavaflex™ 50mm natural wood fibre
Weighted Sound Reduction	Rw 49 dB
Maximum Height	2.4 meters
Nominal Wall Thickness	93mm
Sample Weight	35.9 kg/m²
α w 0.80(H) , according to BS EN ISO 11654:1997	

NB. The above confirmed sound reduction values have been measured in a laboratory environment. The performance of each build-up is subject to using the correct installation method. Please contact us for further information.

Pavacell™ DB Acoustic Solutions

for Internal Timber Stud Partition Walls

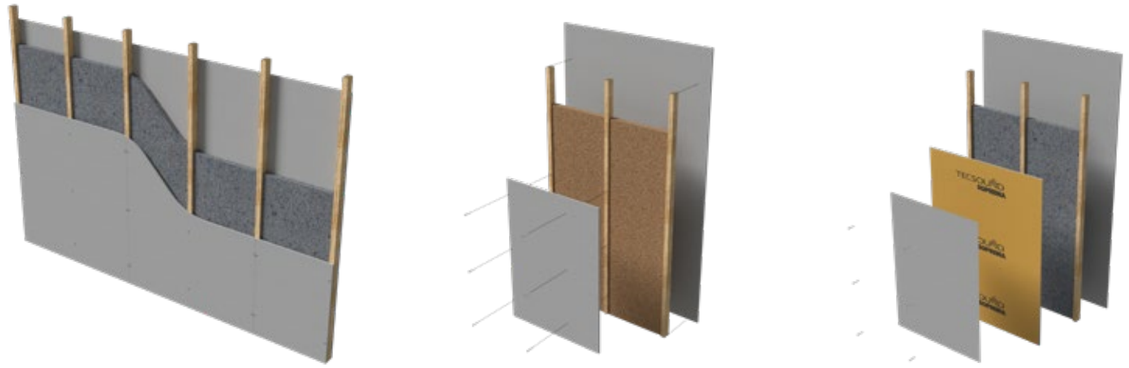


Pavacell™ DB 45mm - Rw 43 dB	
Lightweight 63mm Timber Partition Rw 43 dB, according to BS EN ISO 717-1:2020	
Studs	63mm x 38mm timber studs at 600 centres
Build-up	1 layer of 12.5mm standard plasterboard each side (8.3 kg/m²)
Insulation	Pavacell™ 45mm natural insulation
Weighted Sound Reduction	Rw 43 dB
Maximum Height	2.4 meters
Nominal Wall Thickness	88mm
Sample Weight	25.7 kg/m²
α w 0.85 (H), according to BS EN ISO 11654:1997	

Pavacell™ DB 45mm - Rw 49 dB	
Lightweight 63mm Timber Partition Rw 49 dB, according to BS EN ISO 717-1:2020	
Studs	63mm x 38mm timber studs at 600 centres
Build-up	1 layer of 12.5mm standard plasterboard each side (8.3 kg/m²) 1 layer of Tecsound S100 one side (10 kg/m²)
Insulation	Pavacell™ 45mm natural insulation
Weighted Sound Reduction	Rw 49 dB
Maximum Height	2.4 meters
Nominal Wall Thickness	93mm
Sample Weight	35.7 kg/m²
α w 0.85 (H), according to BS EN ISO 11654:1997	

Pavatextil™ Acoustic Solutions

for Internal Timber Stud Partition Walls



Pavatextil™ PA45 - 45mm - Rw 44 dB	
Lightweight 63mm Timber Partition Rw 44 dB, according to BS EN ISO 717-1:2020	
Studs	63mm x 38mm timber studs at 600 centres
Build-up	1 layer of 12.5mm standard plasterboard each side (8.3 kg/m²)
Insulation	Pavatextil™ PA45 - 45mm natural insulation
Weighted Sound Reduction	Rw 44 dB
Maximum Height	2.4 meters
Nominal Wall Thickness	88mm
Sample Weight	23.3 kg/m²
α w 0.90 (H), according to BS EN ISO 11654:1997	

Pavatextil™ PA45 - 45mm - Rw 50 dB	
Lightweight 63mm Timber Partition Rw 50 dB, according to BS EN ISO 717-1:2020	
Studs	63mm x 38mm timber studs at 600 centres
Build-up	1 layer of 12.5mm standard plasterboard each side (8.3 kg/m²) 1 layer of Tecsound S100 one side (10 kg/m²)
Insulation	Pavatextil™ PA45 - 45mm natural insulation
Weighted Sound Reduction	Rw 50 dB
Maximum Height	2.4 meters
Nominal Wall Thickness	93mm
Sample Weight	35.3 kg/m²
α w 0.90 (H), according to BS EN ISO 11654:1997	

NB. The above confirmed sound reduction values have been measured in a laboratory environment. The performance of each build-up is subject to using the correct installation method. Please contact us for further information.

Insulation Summary Overview

Metal Stud Partition

Insulation	Build-up	Weighted Sound Reduction
Pavaflex™ 50mm natural wood fibre	1 layer of 12.5mm **standard plasterboard** each side (8.3 kg/m²)	41 dB
	1 layer of 12.5mm **acoustic plasterboard** each side (11.5 kg/m²)	44 dB
	1 layer of 12.5mm **standard plasterboard** each side (8.3 kg/m²) 1 layer of **Tecsound S100** one side (10 kg/m²)	47 dB
Pavacell™ DB 45mm natural insulation	1 layer of 12.5mm **standard plasterboard** each side (8.3 kg/m²)	42 dB
	1 layer of 12.5mm **acoustic plasterboard** each side (11.5 kg/m²)	45 dB
	1 layer of 12.5mm **standard plasterboard** each side (8.3 kg/m²) 1 layer of **Tecsound S100** one side (10 kg/m²)	48 dB
Pavatextil™ PA45 - 45mm natural insulation	1 layer of 12.5mm **standard plasterboard** each side (8.3 kg/m²)	43 dB
	1 layer of 12.5mm **acoustic plasterboard** each side (11.5 kg/m²)	46 dB
	1 layer of 12.5mm **standard plasterboard** each side (8.3 kg/m²) 1 layer of **Tecsound S100** one side (10 kg/m²)	48 dB

Pavatextil™ Acoustic Solutions

Timber Stud Partition

Insulation	Build-up	Weighted Sound Reduction
Pavaflex™ 50mm natural wood fibre	1 layer of 12.5mm **standard plasterboard** each side (8.3 kg/m²)	43 dB
	1 layer of 12.5mm **standard plasterboard** each side (8.3 kg/m²) 1 layer of **Tecsound S100** one side (10 kg/m²)	49 dB
Pavacell™ DB 45mm natural insulation	1 layer of 12.5mm **standard plasterboard** each side (8.3 kg/m²)	43 dB
	1 layer of 12.5mm **standard plasterboard** each side (8.3 kg/m²) 1 layer of **Tecsound S100** one side (10 kg/m²)	49 dB
Pavatextil™ PA45 - 45mm natural insulation	1 layer of 12.5mm **standard plasterboard** each side (8.3 kg/m²)	44 dB
	1 layer of 12.5mm **standard plasterboard** each side (8.3 kg/m²) 1 layer of **Tecsound S100** one side (10 kg/m²)	50 dB


pavaflex plus
pavatex

SOPREMA

Expert Advice

Our dedicated technical support team is on hand to guide you in selecting the ideal product for your specific project needs, ensuring optimal thermal, moisture, acoustic, and overheating control to meet your building's unique requirements.

soprema.co.uk

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