

Spacetherm[®] Directfix

THERMAL INSULATION

OVERVIEW

Spacetherm Directfix is a high performance laminate which is specifically designed to be fixed directly to the wall. It consists of Spacetherm Aerogel insulation blanket with an additional pre-bonded plywood reinforcement to the plasterboard. This reinforced laminate will reduce the risk of shot-fired nails failing to create a robust fix and will also reduce the risk of drill bit snagging, should you be using a traditional mechanical fixing method.

Ideal for use in applications where low U-values are required but space is at a premium. Spacetherm Directfix is supplied with foil faced plasterboard as standard to reduce condensation. Plain plasterboard is available on request. Spacetherm Directfix lining boards can achieve similar performance to traditional plasterboard laminates, but at a fraction of the thickness, allowing specifiers greater flexibility and higher performance for refurbishment projects. Due to Spacetherm's unique hydrophobic qualities it is also possible to directly fix Spacetherm Laminates to certain existing wall substrates (see installation guide for details).

KEY FEATURES

- Thin insulation system for hard to treat walls.
- Class Leading Performance
- Minimum loss of room space.
- Direct fix to solid walls.
- Constant long term thermal performance 50 years+.
- Includes an integrated vapour control layer.
- Non-Hazardous material.

INSTALLATION

Spacetherm Directfix can be directly fixed to existing walls either by using shot fired nails or by fixing to battens in the traditional manner. Fixings should be at no more than 500mm centres. Although drilling is not recommended it may be required for wiring and services. When drilling, care should be taken to compress the panel as much as possible to reduce insulation fibres wrapping around the drill bit.

INTERNAL & EXTERNAL ANGLES

Spacetherm panels should be cut in such a way to allow for the jointing of the plasterboard and an unbroken run of insulation to the existing wall in both internal and external angles. Refer to Installation Guide for further details.

PARTITION WALLS

Where an internal partition abutts an external wall with Spacetherm Directfix lining, ideally Spacetherm Directfix should be returned onto the partition or alternatively stopped at the junction.

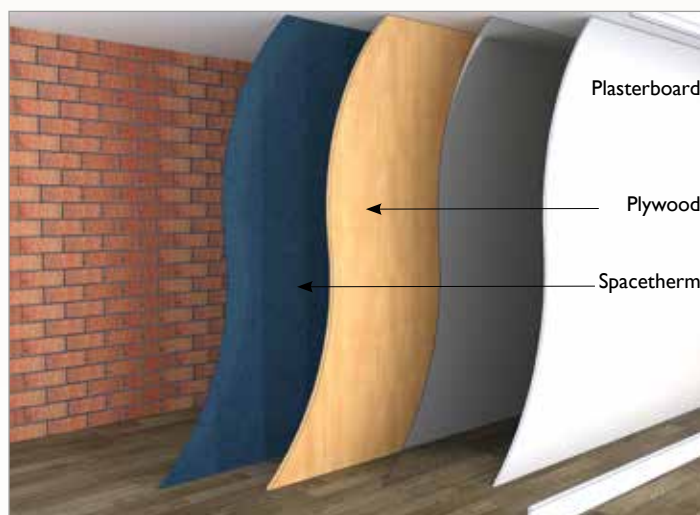
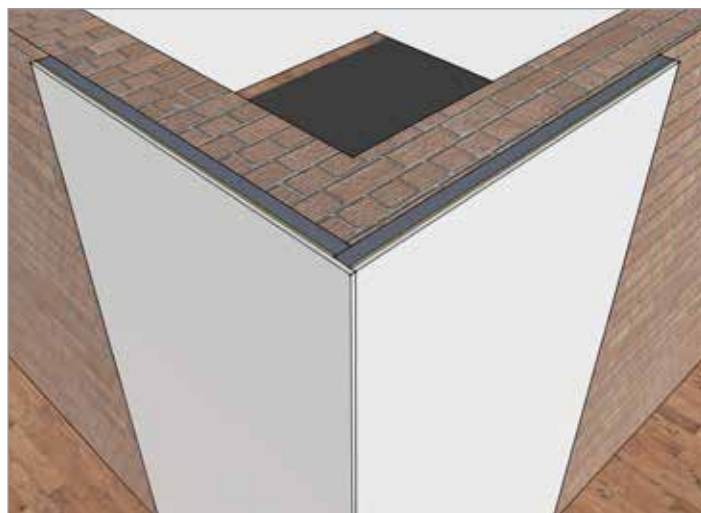


Image showing Spacetherm Directfix applied internally to a reveal on an existing external wall structure.

PHYSICAL PROPERTIES	RESULT
Spacetherm Directfix panel sizes	2400 x 1200mm
Thickness: Plasterboard	12.5mm
Plywood	6mm
Thickness: Aerogel	5, 10, 15, 20mm*
Vapour Control Layer	78.5 MNs/g
K-Factor: Aerogel	0.015W/mK
K-Factor: Plasterboard	0.190W/mK
Plywood	0.13W/mK
Reaction to Fire: Plasterboard	A2, s1, d0
Plywood	D-s2, d0 (EN 13986)
Reaction to Fire: Aerogel	Class C-s1, d0 (EN 13501-1)

For other thicknesses, or for U-value calculations for your project, please contact Technical Services on 01250 872261 or technical@proctorgroup.com



Spacetherm Directfix external angle detail

Spacetherm Directfix

REVEALS

Spacetherm WRB (window reveal board) is a high performance laminate specifically designed to be fixed or glued to the existing solid wall. Spacetherm WRB consists of Spacetherm aerogel insulation blanket bonded to plasterboard or magnesium board with or without plywood reinforcement. For use in applications where low U-values are required with limited space. Any reveals such as those which may occur at windows, doors etc, should be treated in the same manner as the internal and external angles mentioned above. Refer to Installation Guide for further details.

FLOOR & CEILING DETAILS

The skirting board should be removed before Spacetherm Directfix is installed and reapplied using a proprietary adhesive such as Unibond No More Nails. Spacetherm Directfix panels should be measured & cut as close as possible to the ceiling and the remaining space filled with either a PU Foam or traditional plaster filler. Refer to Installation Guide for further details.

TAPING & FILLING JOINTS

Prior to decoration Spacetherm Directfix panels should be thoroughly wiped clean, and then taped and filled. A skim coat may be applied depending on the type of surface finish required.

CUTTING

Spacetherm Directfix laminate may be cut using a jigsaw or circular saw. When using hand tools care should be taken that the fibrous insulation layers are not damaged. Cut-outs for sockets & switches should be made by drilling the corners and then cutting using a jigsaw. Where possible, cut-outs should be made prior to fixing the boards to the wall. Ideally sockets and switches should be surface mounted where possible.

HEALTH & SAFETY

Spacetherm Directfix and in particular the dust produced when handling and cutting the material may cause drying of the skin and therefore gloves and dust masks should be worn. Ensure the working space is well ventilated and when necessary appropriate personal protection equipment is used.

U-value – Performance Ready Reckoner

Base Wall Construction	Spacetherm Directfix	U-value (W/m ² K)	
220mm Brick (no cavity) 13mm Plaster	28.5	0.82	
	33.5	0.65	
	38.5	0.54	
	43.5	0.46	
	48.5	0.40	
	53.5	0.36	
	58.5	0.32	
	Base Wall Performance 2.12 W/m ² K	63.5	0.30
		68.5	0.27
	Spacetherm Directfix	73.5	0.25
	78.5	0.23	
	83.5	0.22	
	88.5	0.20	
	93.5	0.19	
	98.5	0.18	



Image showing Spacetherm WRB applied internally to a reveal on an existing external wall structure.