

Spacetherm® Multi for Floors

THERMAL INSULATION

OVERVIEW

Spacetherm Multi is a high-performance laminate specifically designed to be laid directly onto existing floors & walls. Spacetherm Multi consists of Spacetherm Aerogel insulation blanket bonded to a 6mm Magnesium Oxide Board. Spacetherm Aerogel blanket is available in various thickness from 5mm to 40mm (in multiples of 5). For other thicknesses, or for U-value calculations for your project, please contact Proctor Technical services.

KEY FEATURES

- Thin insulation system for floors.
- Class Leading Performance
- Minimum loss of room height and floor area.
- Cost effective.
- Can accept all floor coverings.
- Constant long term thermal performance 50 years+.
- Non-hazardous material.
- Moisture resistant.

SUB-FLOOR

The sub-floor must be hard, dry and swept clean. The surface conditions should allow Spacetherm Multi to be laid flat. Timber floors, screeded floors and in-situ concrete floors finished with a smooth surface are suitable for the installation of Spacetherm Multi provided they are level.

SERVICES

It is important to note that it is not possible to run any services between the Spacetherm Multi and the sub-floor due to the compactness of the system.

INSTALLATION

Commence laying Spacetherm Multi in the corner furthest from the point of access. A flanking strip available from A. Proctor Group should be used between the perimeter structure and the edge of the Spacetherm Multi panel. Lay the Spacetherm Multi panels along the full length of the room to ensure the exposed edge is properly aligned to allow a straight joint for the next line of panels.

SPACETHERM MULTI PANEL STAGGER

Spacetherm Multi panels should be staggered by a minimum of 400mm. The off-cut from the previous row should be used at the start of the next row, provided that it is not less than 200mm wide. See Fig 1.

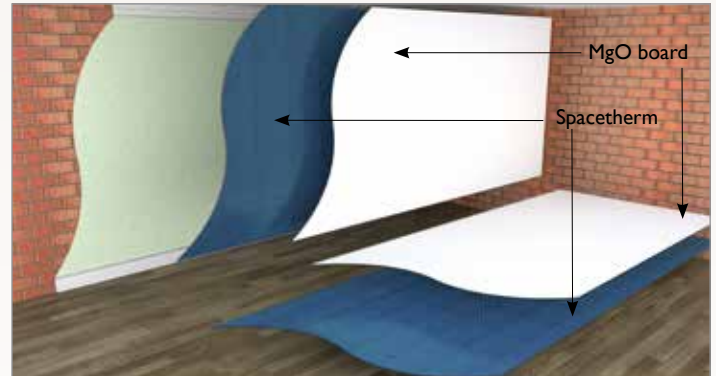


Image showing Spacetherm Multi components, magnesium oxide board bonded to Aerogel insulation



Fig 1 - Spacetherm Multi skirting detail

PHYSICAL PROPERTIES	RESULT	
Spacetherm Multi panel sizes	Floors / WRB / Soffit Lining	1200 x 600mm
	Walls	2400 x 1200mm
Thickness Spacetherm Multi	Floors / WRB / Soffit Lining	From 11mm
	Walls	From 11mm
K-Factor Magnesium Oxide	0.19W/mK	
K-Factor Aerogel	0.015W/mK	
Compressive Strength	80kPa	
Vapour Resistance	Sd 0.05m	
Fire Resistance: Aerogel	Class C-s1, d0 (EN 13501-1)	
MgO Board	Class A1 (EN 13501-1)	

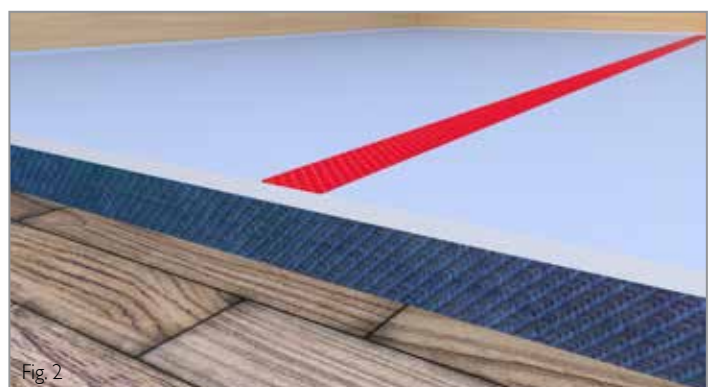


Fig. 2

Spacetherm Multi for Floors

FIXINGS

Mechanical fixings must not be used to fix main flooring panels. Apply PVA or PU glue to groove at joints of all Spacetherm Multi panels before butting them together. See Fig. 3 & 4.

CUTTING

Spacetherm Multi 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 by cutting from the board side only.

PARTITIONS

It is not recommended that partitions be mounted off the Spacetherm Multi flooring system.

EXPANSION

Allow for an expansion strip around the perimeter between Spacetherm Multi and the wall or other abutment. This gap should be calculated as 2.5mm per linear metre of flooring and in no circumstances should be less than 10mm over the full length of run. The rate of expansion or contraction will depend on the moisture content of the boards, the laying conditions and the length of run. If required, small wedges can be placed between the Spacetherm Multi boards.

HEALTH & SAFETY

Spacetherm Multi 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 Floor Construction	Spacetherm C	U-value (W/m ² K)
125mm Concrete Slab P/A Ratio = 1	10	0.53
	15	0.45
	20	0.39
	25	0.35
	30	0.31
	35	0.28
Base Floor Performance	40	0.26
	45	0.24
	50	0.22

Base Floor Construction	Spacetherm C	U-value (W/m ² K)
125mm Concrete Slab P/A Ratio = 0.75	10	0.49
	15	0.42
	20	0.36
	25	0.32
	30	0.29
	35	0.27
Base Floor Performance	40	0.24
	45	0.23
	50	0.21

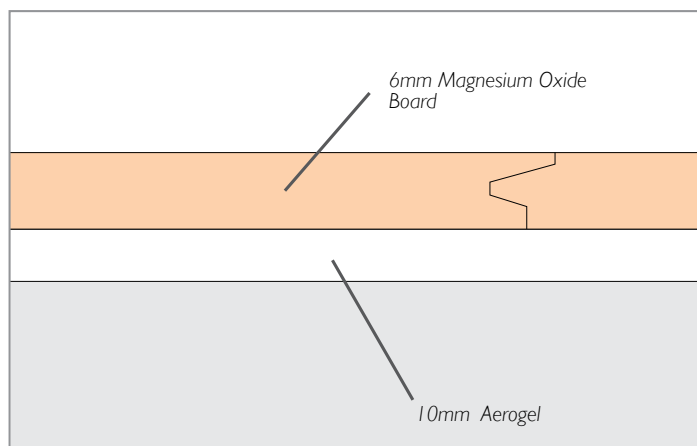


Fig. 3

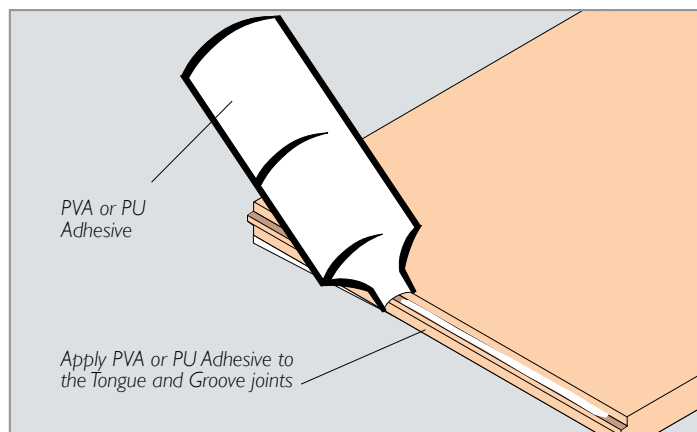


Fig. 4

Base Floor Construction	Spacetherm C	U-value (W/m ² K)
125mm Concrete Slab P/A Ratio = 0.5	10	0.42
	15	0.37
	20	0.32
	25	0.29
	30	0.26
	35	0.24
Base Floor Performance	40	0.22
	45	0.21
	50	0.19

Base Floor Construction	Spacetherm C	U-value (W/m ² K)
125mm Concrete Slab P/A Ratio = 0.25	10	0.29
	15	0.27
	20	0.24
	25	0.22
	30	0.21
	35	0.19
Base Floor Performance	40	0.18
	45	0.17
	50	0.16