

Styrofloor® is an insulated flooring panel, comprising P5 moisture resistant chipboard and XPS (extruded polystyrene) insulation. It provides a simple and easy to lay method of insulating floors in both new build and refurbishment projects.

Applications

Styrofloor® can be used to insulate floors in residential and commercial projects for both new build and refurbishment. Styrofloor® is also suitable for use in conservatories, garden buildings and conversion projects.

Styrofloor® Fact File:

Size:

2400mm x 600mm T&G four edges

Thickness:

Chipboard 18mm (22mm optional)
XPS Insulation 25mm, 50mm, 75mm, 100mm, 150mm (other thicknesses available on request).

Weight:

13kg/m² – 15kg/m²

XPS Insulation Density:

33kg/m³

Thermal Resistance (W/mK)

43mm	68mm	93mm	118mm	168mm
0.93	1.55	2.26	2.83	4.96

Compressive Strength:

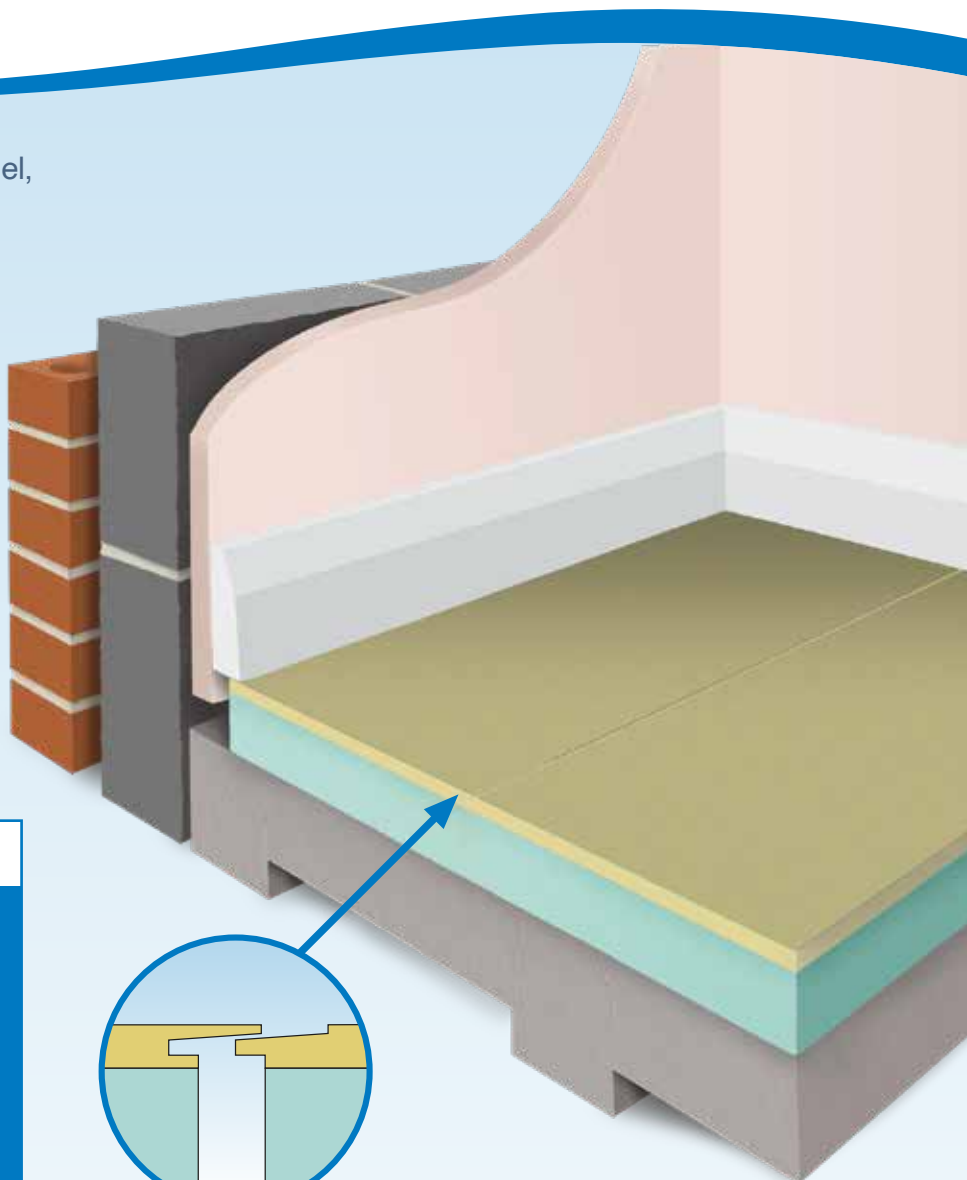
XPS Insulation -- 300 kN/m²

Water Vapour Resistivity (μ):

XPS Insulation -- μ = 100

Specification

The floor insulation should be Styrofloor® TG4 2400mm x 600mm xmm (state thickness). Manufactured by Panel Systems Ltd and should be installed according to the manufacturer's instructions.



Tongue & Groove

- ✓ CFC/HCFC free with zero Ozone Depletion Potential (ODP), and Global Warming Potential (GWP) less than 1
- ✓ Combines insulation and floor finish
- ✓ Eliminates the need for a final screed
- ✓ Simple and fast to install
- ✓ Excellent compression resistance
- ✓ Resistant to moisture
- ✓ Easy to handle, cut and lay
- ✓ No mechanical fixings

Styrofloor® fixing instructions:

Floor preparation

On existing floors, skirting and cupboards should be removed. Uneven floors can be levelled by the use of proprietary levelling compound. If particularly damp conditions exist, then, in the absence of a damp proof membrane, a 1000 gauge polythene sheet should be used under the Styrofloor®.



On new floors, the use of a floor screed, is not required, providing that the floor is level and reasonably tamped down. The incorporation of a damp proof membrane should be in accordance with current building regulations.

Concrete floors should be left as long as possible before laying Styrofloor® to allow adequate drying out. If a liquid type membrane is used, then ensure it is compatible with extruded polystyrene and is completely dry, prior to the laying of Styrofloor®.

In accordance with the recommendations for the use of chipboard, Styrofloor® should be loose laid on the chosen floor, 48 hours before setting out.

Setting out

Ensure that before setting out, the floor is cleaned and any loose aggregate or site spoil removed.

It is suggested that the first line of boards be laid against the longest straight wall. All subsequent boards should be positioned so that cross-joints are staggered to produce a brick pattern.

Laying your floor

The Styrofloor® boards should be laid with a 10-12mm expansion gap at all abutments, between walls and the chipboard.

		Styrofloor thickness & Thermal resistance (m²k/W)				
"P/A" Ratio	Uninsulated "U" Value	43	68	93	118	168
		0.93	1.55	2.26	2.83	4.96
		New U Value Achieved				
0.05	0.13	0.12	0.11	0.10	0.10	0.08
0.10	0.22	0.18	0.16	0.15	0.14	0.11
0.15	0.30	0.24	0.20	0.18	0.16	0.12
0.20	0.37	0.28	0.24	0.20	0.18	0.13
0.25	0.44	0.32	0.26	0.22	0.20	0.14
0.30	0.49	0.34	0.28	0.23	0.21	0.14
0.35	0.55	0.37	0.30	0.25	0.22	0.15
0.40	0.60	0.39	0.31	0.25	0.22	0.15
0.45	0.65	0.41	0.32	0.26	0.23	0.15
0.50	0.70	0.43	0.34	0.27	0.23	0.16
0.60	0.82	0.48	0.36	0.29	0.25	0.16
0.70	0.91	0.51	0.38	0.30	0.25	0.17
0.80	0.99	0.53	0.39	0.31	0.26	0.17
0.90	1.05	0.55	0.40	0.31	0.26	0.17
1.00	1.10	0.56	0.41	0.32	0.27	0.17

Where P = Total exposed floor Perimetre (Metres) & A = Total Floor Area (m²)

Where there are long uninterrupted lengths of floor, such as corridors, reduced expansion gaps eg 5mm, may be used. Square joints eg matwells or threshold joints should be supported on battens.



All joints should be bonded using Water Resistant PVA Adhesive. Each board should be tamped with a suitable block, tight-up against the adjoining board.

To obtain the best results, allow the adhesive 24 hours in which to harden before removing wedges.

Services

Central heating pipes, cold water pipes and electrical conduits can be accommodated within XPS thickness.

Ensure all services are securely fixed to the floor and, where necessary, cut the foam back to accommodate.

It is recommended that flexible pipe insulation is used to protect the underside of pipework from direct contact with the concrete floor. Direct contact between hot water pipes and the XPS should be avoided.

After installation

Check that the expansion gaps are clear prior to the fixing of skirting boards.

Under no circumstances should artificial heating be introduced into the room to facilitate rapid drying out of the building.

Should there be any unevenness of the floor at the board joints, it is acceptable to sand down the affected area. Ensure the resultant dust is cleared prior to laying the floor finish.

Floor finishes

The choice of floor finishes should be made with reference to manufacturers fixing instructions for floating floor constructions.

Design issues

When using a flexible DPM or vapour control layer, then continue the membrane up the wall around the perimeter of the floor.

Non-load bearing partitions may be fixed directly to the Styrofloor®. Use extra support at doorwells.