

SOLUTIONS FOR

Roofs

Walls

Floors

Ceilings

Styroliner® insulated dry lining boards create warmer rooms and reduce energy consumption.

Styroliner® is constructed from Styrofoam® extruded polystyrene, faced with plasterboard. It provides a simple and cost-effective solution to insulating walls and is suitable for both refurbishment and new build applications.

Styroliner® Technical Data:

Size:

2400mm x 1200mm
Special sizes on request.

Board Thickness*:

27, 35, 40, 48, 60, 85mm
*Inclusive of 9.5mm Plasterboard

Weight:

6.8kg/m² – 8.7kg/m²

Styrofoam Density:

33kg/m³

Thermal Conductivity ('K' value)

Plasterboard - 0.16 W/mK
Styrofoam® - 0.027 W/mK

Compressive Strength:

Styrofoam® - 300 KN/ m²K

Water Vapour Diffusion Resistance

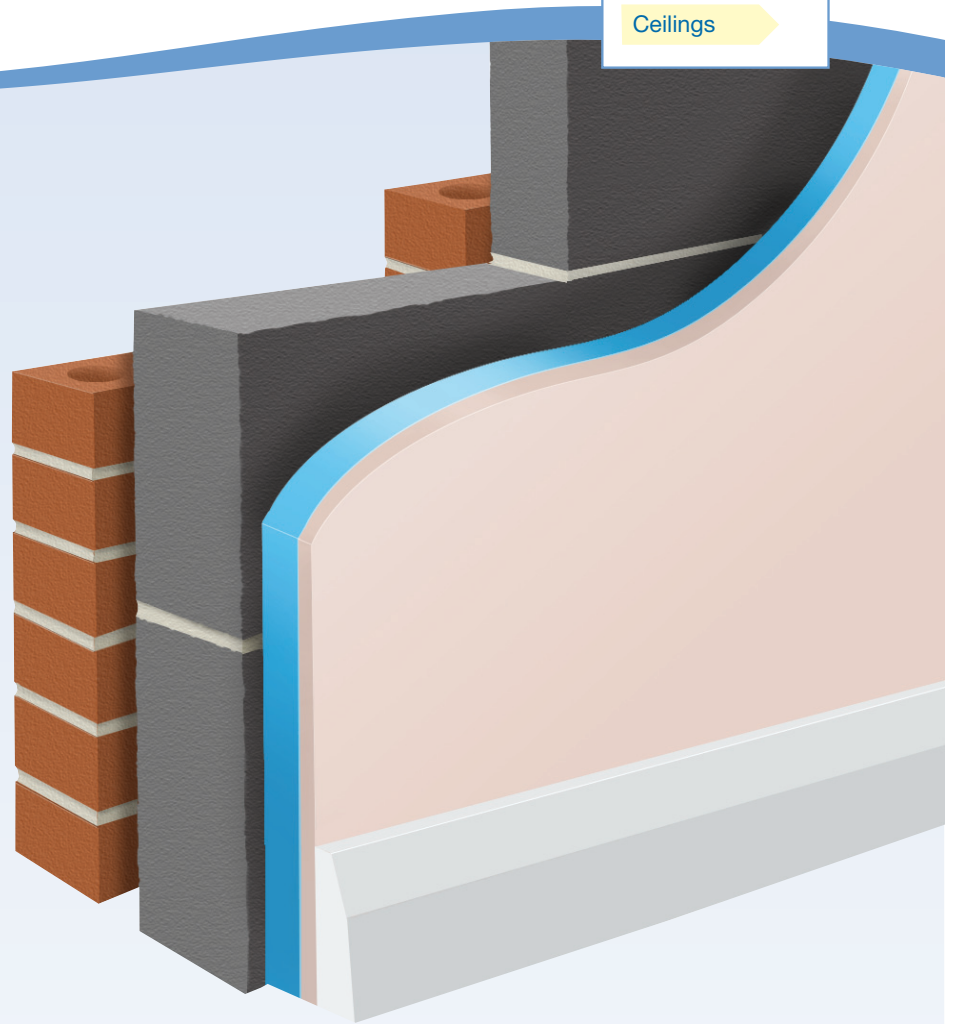
Factor: based on DIN EN 12086 (μ) – 100

Edge/Finish Details:

Faced with SEM plasterboard as standard, TEM available to order

Example Specification

Product: Styroliner®
Size: 2400mm x 1200mm x 40mm
Fixing: In accordance with manufacturers recommendations.



CERTIFICATE No 86/1602

- ✓ Low thermal conductivity
- ✓ High resistance to moisture
- ✓ Long term effective insulation
- ✓ Class 'O' to Building Regulations
- ✓ 'A' grade foam available with ODP of zero and GWP of one.
- ✓ BBA approved.

Styroliner product selection table

Overall thickness	Board size	Weight per board	Boards per pallet	M ² per pallet	Thermal resistance (m ² K/W)
27mm	2400 x 1200mm	19.7 kg	37	106.6	0.68
35mm	2400 x 1200mm	20.4 kg	29	83.5	0.96
40mm	2400 x 1200mm	20.9 kg	25	72.0	1.14
48mm	2400 x 1200mm	21.6 kg	21	60.5	1.43
60mm	2400 x 1200mm	22.7 kg	17	49.0	1.90
85mm	2400 x 1200mm	25.1 kg	12	34.6	2.85

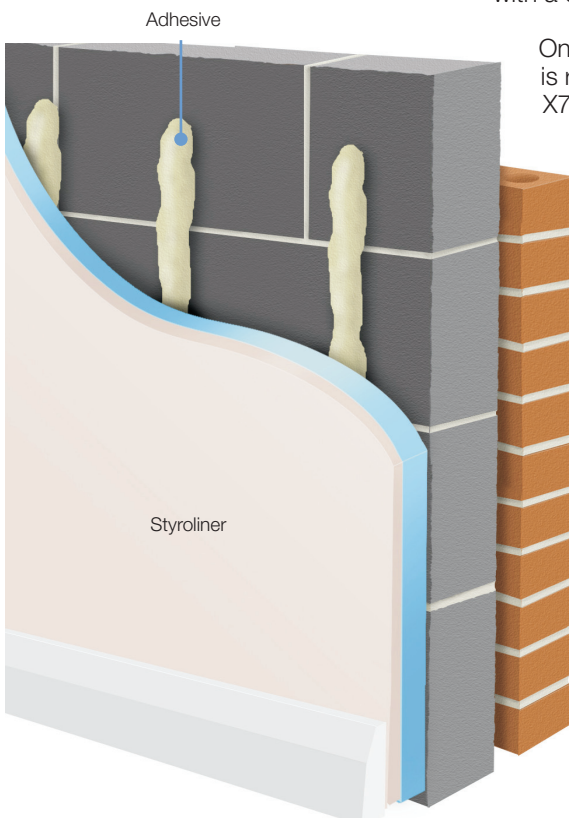
Design

To avoid thermal bridging, use a combination of Styroliner® thicknesses around window reveals. Ensure that any PVC insulated cables are not in direct contact with the Styrofoam. Either cutback the Styrofoam or protect within conduit.

Use an expanding foam to seal around any service penetration through the Styroliner® board.

Typical fixing system

6 fixings per board, (2 top, 2 middle, 2 bottom)



Fixing

Styroliner® can be fixed to a wide range of wall and ceiling constructions. On existing walls and ceilings, remove any loose plaster or wallpaper and scour any painted surfaces. If the surface is damp or subject to mould growth, pre-treatment with an anti-fungal treatment is recommended.

On new walls, care should be taken to minimize mortar overhang. A suitable adhesive should be applied to the wall to form a continuous band around the board with a centre band of adhesive.

On existing walls which are damp, it is recommended that Ardex Ardurit X7 is used, which is unaffected by moisture.

In the case of clean, dry walls or new build, a gypsum-based bonding adhesive may be used, e.g. Gyproc multi purpose adhesive.

The Styroliner® board should be pressed up against the adhesive and tamped back using a straight edge. Secondary, mechanical fixings are recommended and fixing should penetrate the masonry surface by 25mm or as recommended by the manufacturer.

Styroliner® can be finished using either a plaster skim or with established dry wall techniques.

Fire protection

As a result of the non-combustible nature of the plasterboard face, Styroliner can be used where a class 'O' surface is required, in accordance with Building Regulations.

Cutting

When cutting Styroliner boards, ensure work space is adequately ventilated. Dust from sawing or sanding may irritate the respiratory system, skin and eyes, therefore suitable PPE equipment should be used.

Styroliner can be cut using a plasterboard saw. Alternatively, boards can be cut by scoring with a sharp knife and then snapping the board over a straight edge. Socket box holes should be cut prior to fixing.

If power tools are to be used, these should only be operated by competent personnel, who have been trained to use them safely.

Handling & Storage

It is essential, for successful fixing that boards are stored flat, on a dry level surface which is completely protected from rain and snow and in a well ventilated area. Stacks of boards should not exceed a height of 1000mm.

When manually handling, please note that board weights vary depending on thickness. Please refer to the table above for details.

Technical Support

Panel Systems offers a full support service, including the calculation of 'U' values, interstitial Condensation analysis and SAP ratings.