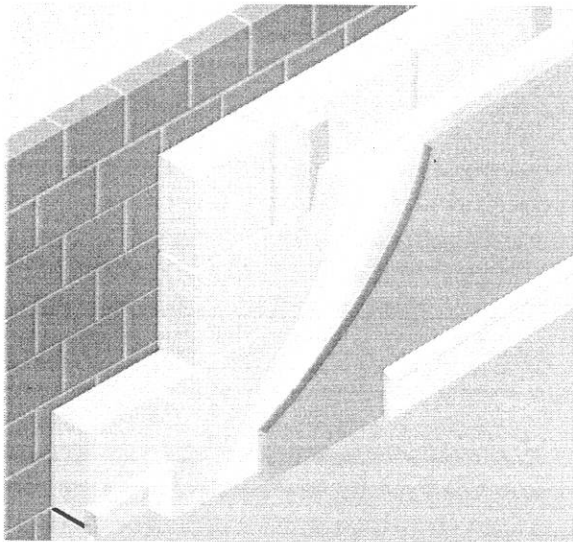




# ULTRA EFFICIENT INSULATED PLASTERBOARDS



## Performance Insulation

Ultra Liner Insulated Plasterboard is a high performance laminated board for insulating walls and ceilings. The product consists of a 12.5mm tapered edged plasterboard factory bonded to rigid polyisocyanurate (PIR). The insulation is faced with either foil for mechanical fixing or kraft foil paper to accept dry wall adhesive.

In order to achieve the required U values, the insulation is available in a large range of thicknesses and the board is also available in a "handi" 900mm x 1200mm size for use in lofts and confined spaces.

## Unrivalled Product Range

In addition to PIR insulation Ultra Liner board is available with several alternative insulation materials dependent upon application.

Ultra Liner Ref	Application	Board Size	Insulation
PIR/MF	Foil backed PIR for mechanical fix	1200mm x 2400mm	25mm to 100mm
PIR/AF	Kraft foil paper faced PIR for adhesive fix	1200mm x 2400mm	25mm to 70mm
PIR/MF/Handi	Foilbacked PIR for use in confined spaces	900mm x 1200mm	25mm to 50mm

## Installation and Site Handling

### Walls - Mechanical Fix

Ultra Liner board should be fixed to vertical battens at maximum 600mm centres and horizontal battens supporting the top and bottom edges of the boards. Window and door openings should be trimmed with battens to support the edges of the board. Battens need to be pre-treated and at least 40mm wide to allow sufficient edge support to the plasterboards. The boards should be fixed using screws long enough to allow a 25mm bite into the batten and the screws need to be at 150mm centres at least 13mm away from the edge of the board. When the boards meet at corners the insulation should be cut back to ensure the plasterboard fully envelopes the insulation.

### Walls - Adhesive Fix

Ultra Liner board should be fixed by applying 50-75mm wide drywall adhesive dabs to the wall at 300mm centres, 25mm in from the board edge giving an adhesive contact area of 20% with board. A 50mm continuous ribbon should be maintained at the top and bottom of the board to provide fire-stopping and achieve air-tightness and predicted U values. Once the adhesive is dry then three additional mechanical fireproof fixings should be fixed through the board centre.

### Pitched Roofs - Mechanical Fix

Ultra Liner board should be screwed directly to rafters at 150mm centres using screws long enough to allow a 25mm bite into the timber.

### Cutting and Storage

Ultra Liner boards can be cut using a fine toothed saw or sharp knife. The boards should be stored off the ground and must be covered to ensure they are protected from the elements.

## ULTRA LINER: Typical U Values

Illustrated below is a range of U values that can be achieved in different construction methods. Ultra Liner is the practical and cost effective solution for refurbishment projects and new build. If your design requirements are not contained in the information below then please contact us so we can advise on the products needed to meet your target U Value.

Refurbishments	
U Value	Solid Wall
W/m <sup>2</sup> K	Brick 225mm or Stone 600mm
0.35	50mm/12.5mm
0.30	60mm/12.5mm
0.27	70mm/12.5mm

Above calculations based on Ultra Liner AD adhesive fix board.

Refurbishments	
U Value	Brick Outer, Cavity
W/m <sup>2</sup> K	Dense Block Inner 100mm
0.34	50mm/12.5mm
0.30	60mm/12.5mm
0.26	70mm/12.5mm

New Build - Traditional Brick & Block	
U Value	Traditional Brick/Lightweight Block
W/m <sup>2</sup> K	100m Cavity & Partial Fill PIR Ins 50mm
0.21	25mm/12.5mm
0.20	30mm/12.5mm
0.19	40mm/12.5mm
0.18	50mm/12.5mm

Above calculations based on Ultra Liner AD adhesive fix board.

New Build - Traditional Brick & Block	
U Value	Traditional Brick/Lightweight Block
W/m <sup>2</sup> K	100m Cavity & Full Fill Ins 100mm
0.22	25mm/12.5mm
0.21	30mm/12.5mm
0.19	40mm/12.5mm
0.18	50mm/12.5mm

New Build - Timber Frame	
U Value	90mm Timber Frame With:
W/m <sup>2</sup> K	Non Reflective Breather & 90mm Ins
0.27	25mm/12.5mm
0.25	30mm/12.5mm
0.22	40mm/12.5mm
0.20	50mm/12.5mm

Above calculations based on Ultra Liner MF or AD fix board with 90mm Ultra Roll TF fitted in the timber frame.

New Build - Timber Frame	
U Value	90mm Timber Frame With:
W/m <sup>2</sup> K	Reflective Breather & 90mm Ins
0.23	25mm/12.5mm
0.22	30mm/12.5mm
0.20	40mm/12.5mm
0.18	50mm/12.5mm

New Build - Timber Frame	
U Value	140mm Timber Frame With:
W/m <sup>2</sup> K	Non Reflective Breather & 140mm Ins
0.21	25mm/12.5mm
0.20	30mm/12.5mm
0.18	40mm/12.5mm
0.17	50mm/12.5mm

Above calculations based on Ultra Liner MF or AF fix board with 140mm Ultra Roll TF fitted in the timber frame.

New Build - Timber Frame	
U Value	140mm Timber Frame With:
W/m <sup>2</sup> K	Reflective Breather & 140mm Ins
0.18	25mm/12.5mm
0.17	30mm/12.5mm
0.16	40mm/12.5mm
0.15	50mm/12.5mm