

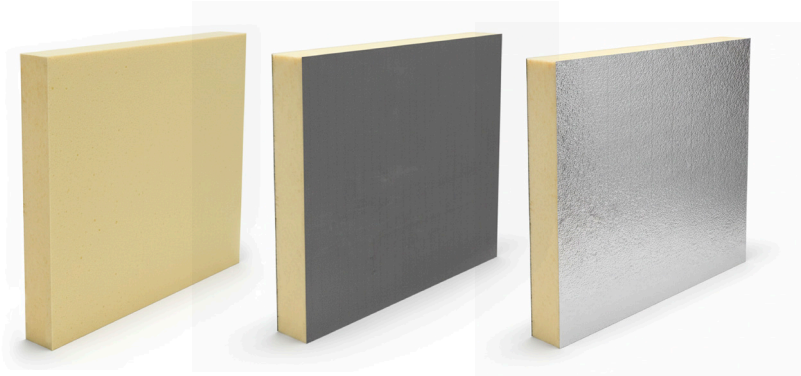
**MASONS PrimeTherm ERS PIR RIGID  
INSULATION BOARDS**

## TECHNICAL DATA SHEET



**MASONS**  
Designed Smart, Built Tough.

V1.2 November 2025



**PrimeTherm ERS** is Polyisocyanurate Rigid Insulation Foam commonly called PIR Board. It has high thermal resistance for its relative thickness.

It is available in three facing options: No facing, (sometimes called Lamination Board or Raw), Glass Cloth (Mortar Paper) or Aluminium Foil.

PIR board is available in various densities and with differing levels of fire retardancy (FR).

**B2 grade** has moderate to low FR. The choice of facing makes a considerable difference in resisting flame. B2 grade is widely used in New Zealand offering the best compromise between R values and FR.

**B1 Grade** (available by indent order) has higher FR. R Values may be reduced due to density and FR additives.

**PrimeTherm ERS** PIR board has many high-performance insulation applications in buildings including under slab, slab edge, warm roof and ceilings. Also, insulating masonry, and both in and out wall frame insulation, and proprietary cladding systems.

**Warranty** 15 years

**Durability** 15-50 years minimum - When installed used in accordance with Masons installation instructions and specific uses - building application data sheets.

Thickness of board (mm)	FR class	Sizes (mm)	Facings
20	B2	2400 x 1200	Raw, Glass Cloth, Foil
25	B2	2400 x 1200	Raw, Glass Cloth, Foil
30	B2	2400 x 1200	Raw, Glass Cloth, Foil
50	B2	2400 x 1200	Raw, Glass Cloth, Foil.
80	B2	2400 x 1200	Raw, Glass Cloth, Foil
90	B2	2400 x 1200	Raw, Glass Cloth, Foil
120	B2	2400 x 1200	Raw, Glass Cloth, Foil

140	B2	2400 x 1200	Raw, Glass Cloth, Foil
140	B2	2400 x 1200	Raw, Glass Cloth, Foil
Pre shaped slab edge	FR class	Sizes (mm)	Facings
22	B2	2400 x 270	Glass cloth
22	B2	2400 x 300	Glass cloth
22	B2	2400 x 380	Glass cloth

NB. Some board sizes and facings may need to be ordered to specification. Check with Masons what is held in stock.  
 B1 FR grade is available to order.

## FIRE CLASSIFICATION

Core classification: GB 8624-2012 **B2** (normal flammability). Approximate EN 13501-1 equivalence: Class E. In NZ, this equates to a Group 3-4 material. Boards must be concealed behind Group-rated linings (e.g. plasterboard Group 1-S, fibre-cement) for interior use. Not permitted as exposed linings.

PrimeTherm ERS Aluminum foil facer tested to AS/NZS 1530.3.1999 Ignite-ability, Flame propagation and heat release Index's - 0. Smoke developed index - 1

## WVTR (WATER VAPOUR TRANSMISSION RATE)

Aluminum foil faced PIR board is not permeable to water vapour. Fibre glass cloth and un-faced PIR board are slightly more permeable. They are not 'breathable'. WVTR circa 350 ( $\mu\text{p}/\text{m}^2.\text{s}$ ).

## DIMENSIONAL STABILITY

Less than 1% change at tested temperatures and RH.

## MECHANICAL PROPERTIES & THERMAL PERFORMANCE - R-VALUES

Facing Type	.022W m-k thickness in mm	R Value $\text{m}^2$ K/W Tested	R Value after aging* (estimated)	Density $\text{kg}/\text{m}^3$	Compressive strength KPA
All	22	0.99**	0.84	60	158
All	25	1.13	0.85	60	158
All	50	2.25	2.03	40	158
All	80	3.60	3.24	40	158
All	100	4.50	4.05	40	158
All	120	5.41	4.86	40	158

\* What is the Aged R Value? R Value is a measure of thermal resistance -R.

PIR board R values reduce slowly post production. Typical PIR board R value reduction is thinner boards up to >13-15%. Thicker boards circa >10% R values stabilise after approx. 2 years.

Building designers use aged R values for an accurate thermal modelling of the building performance.

\*\* In keeping with the PIR Board industry in NZ and common available slab edge design calculators, Masons suggests using an input value of R 1.0 for Masons Slab Edge



## Applications

See PrimeTherm ERS Design and Installation guides and drawings for each application.

### **WALLS (FRAMED/CAVITY)**

Concealed behind plasterboard within framed cavity OR to the outside of the frame behind the drained cavity and cladding.

### **ROOF AND CEILING**

Under profiled metal roofing (warm/cold roofs); not as exposed interior finish. Ceilings with or without a vapour control layer.

### **UNDER CONCRETE SLAB**

Continuous insulation beneath slab; protect from site damage.

### **SLAB EDGE INSULATION**

Continuous vertical perimeter insulation; protect above-grade sections with UV/ impact-resistant cover or coatings.

### **MASONRY & TILT-SLAB PANELS**

Continuous insulation on warm side; mechanically fix/adhere and over-line to achieve Group 1-S exposed surface.

### **LIMITATIONS**

Not for exposed interior linings. Provide compliant linings and fire separations as required.

### **HANDLING**

Refer PrimeTherm ERS PPIR Board MSDS.

### **STORAGE**

Store clean and dry, stacked level and is supported. Preferably stored inside, may be stored outside. Covering with a suitable tarpaulin recommended.

### **DISPOSAL**

Measuring and ordering accurately is strongly encouraged, as is cutting carefully to minimise waste. Dispose in accordance with your local council's guidance for rigid foam board off cuts. Do not dispose of by burning. Re purpose for future applications. See PrimeTherm ERS MSDS

### **FURTHER INFORMATION**

More information about Prime Therm ERS may be found at: [mpb.co.nz](http://mpb.co.nz) > PrimeTherm ERS PIR Board

- BPIR
- Material Safety Data Sheet
- Design and Installation Guides for popular applications
- Drawings illustrating popular applications
- Compliance information and certification