

# MASONS PRIMETHERM ERS PIR RIGID INSULATION BOARDS

## PURPOSE

Masons PrimeTherm ERS PIR Boards are supplied for use as lightweight rigid insulation panels for:

- under-slab and slab-edge insulation
- as insulation in the cavity of a wall, roof or floor, or as insulation panels on the external wall.
- insulation for masonry walls or other proprietary cladding systems
- as an underlay for a warm roof membrane.

Masons PrimeTherm ERS PIR Boards are designed to reduce thermal bridging in high performance passive buildings where the designer has considered the use of the space and the ventilation requirements.



For further assistance please contact:

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## EXPLANATION

Masons PrimeTherm ERS PIR Boards are manufactured from rigid polyisocyanurate (PIR) closed cell foam insulation board with a density of 40-60 k/m<sup>3</sup>.

The boards are available with facing options or no facing. Options are: no facing/raw, glass cloth (mortar paper), or aluminium foil.

Masons PrimeTherm ERS PIR Boards are available in B2 grade for fire retardancy (FR). Where a higher FR is required B1 Grade is available on request from Masons.

Masons PrimeTherm ERS PIR Boards are available in panels of 2400 x 1200 mm and thicknesses of (mm) 20, 25, 30, 50, 80, 90, 100, 120, 140 and 150.

It achieves the following R-values, m<sup>2</sup> K/W tested and estimated R value after aging (rounded and varies depending on board facing):

- 25 mm – R 1.13, after aging 0.84
- 80 mm – R 3.60, after aging 3.24
- 120 mm – R 5.41, after aging 4.86.
- 50 mm – R 2.25, after aging 2.03
- 100 mm – R 4.50, after aging 4.05

The boards are also available as a pre-shaped slab edge to suit brick veneer or other cladding and common slab set outs. The slab-edge boards have a thickness of 22 mm and heights of 300 mm and 380 mm. The boards achieve an R-value of 0.99 before aging

## SCOPE AND LIMITATIONS OF USE

Scope	Limitations
<b>Location</b>	
In all exposure zones as defined in NZS 3604:2011.	➤ Where microclimatic conditions apply (refer to paragraph 4.2.4), contact Masons for technical advice.
In all climate zones as defined in H1/AS1 (5 <sup>th</sup> edition).	
At least 1 m from a relevant boundary.	➤ All other parts of the wall assembly must comply with all relevant NZ Building Code Protection from fire clauses, where these apply, and aluminium foil faced board must be used.
<b>Building</b>	
In conjunction with buildings where the primary structure complies with the NZ Building Code or for an existing structure when the designer and installer are satisfied that the existing building is suitable for the intended building work.	
As an under-slab or slab-edge insulation.	
As insulation in the cavity of a wall, roof or floor.	➤ Where used in the cavity of a wall, roof, or floor, raw PIR or glass cloth (mortar paper) boards are to be used.
As insulation for a masonry wall system or proprietary cladding system.	



## Scope

As part of a warm roof/ceiling or warm wall (e.g. as insulation panels on the external wall).

## Limitations

- PrimeTherm ERS PIR Boards with an aluminium foil facing are not permeable to water vapour and cannot be used direct fixed on framing for wall or ceiling insulation except for buildings that are specifically designed for the internal environment to provide for adequate ventilation, e.g. for a 'passive' building. Where the PrimeTherm ERS PIR Boards are used as insulation panels on the external wall, the cladding system must incorporate a drained and ventilated cavity.
- Where Masons PrimeTherm ERS PIR Boards with an aluminium foil facing are used in the external walls or ceiling of a building, compliance of the building with Clause E3 must be by specific design e.g. the design of passive or mechanical ventilation.
- Aluminium foil faced board must be used for continuous insulation fitted to the outside of wall framing. All exposed board edges and laps must be sealed with aluminium-faced tape.

## CONDITIONS OF USE

- The installation of the Masons PrimeTherm ERS PIR Boards must be carried out or supervised by a Licensed Building Practitioner.
- The design installation of the Masons PrimeTherm ERS PIR Boards for all uses must be carried out in accordance with all Masons' design and installation instructions.
- Design must be in accordance with NZS 4218:2009 or NZS 4214:2006.
- Installation must be in accordance with NZS 4218:2009 or NZS 4246:2016.
- For correct selection of Masons PrimeTherm ERS PIR Boards refer to Masons "Applications and facing choices" table.
- PrimeTherm ERS PIR Boards with an aluminium foil facing used near wiring must comply with NZECP 55:2016 and standard electrical practice to AS/NZS 3000:2018.
- The installer must ensure that Masons PrimeTherm ERS PIR Boards do not come into direct contact with electrical wiring. Install cables in a PVC or PE conduit, or use polyethylene or polypropylene tape between PVC and polystyrene. Alternatively, use cables with a non-migratory PVC sheath.
- The installer must ensure a minimum of 200 mm clearance between Masons PrimeTherm ERS PIR Boards and recessed lights.

## PERFORMANCE CLAIMS

If designed, installed and maintained in accordance with all Masons NZ Ltd requirements, Masons PrimeTherm ERS PIR Boards will comply with or contribute to compliance with the following performance claims:

NZ Building Code clauses	BASIS OF COMPLIANCE	
	Compliance statement	Demonstrated by
<b>B1 STRUCTURE</b> B1.3.1, B1.3.2, B1.3.3 (a, j), B1.3.4	ALTERNATIVE SOLUTION	➤ Grade B2 FR Grade insulation, tested in accordance with GB8624-2012; compressive strength 158 Kpa, greater than test standard <sup>3</sup> 150 Kpa; density <sup>3</sup> 40 – 62.6 kg/m <sup>3</sup> , greater than test standard 30 k/m <sup>3</sup> [Masons NZ Ltd, 08/2025].
<b>B2 DURABILITY</b> B2.3.1 (a), B2.3.2	ALTERNATIVE SOLUTION	➤ Polyisocyanurate rigid insulation foam is moisture and mould resistant with dimensional stability less than 1% change at tested temperatures [Masons NZ Ltd, 08/2025].
<b>C3 FIRE AFFECTING AREAS BEYOND THE FIRE SOURCE</b> C3.7(c)	VERIFICATION METHOD C/VM2	➤ Aluminium foil faced board, tested to AS/NZS 1530.3:1999, indices ignitability 0, spread of flame 0, heat evolved 0, smoke developed 1 [AWTA Product Testing, 14/11/2025].

## USEFUL INFORMATION

For design, installation and maintenance information, refer to [www.mpb.co.nz](http://www.mpb.co.nz).



NZ Building Code clauses	BASIS OF COMPLIANCE	
	Compliance statement	Demonstrated by
<b>F2 HAZARDOUS BUILDING MATERIALS</b> F2.3.1	ALTERNATIVE SOLUTION	➤ Use in accordance with supplier's safety instructions [Masons NZ Ltd, 08/2025].
<b>H1 ENERGY EFFICIENCY</b> H1.3.1 (a), H1.3.2E	VERIFICATION METHOD H1/VM1 ACCEPTABLE SOLUTION H1/AS1	➤ Tested in accordance with AS/NZS 4859.1:2018, as cited in H1/AS1 and H1/VM1 [Masons NZ Ltd, 11/2025].

## SOURCES OF INFORMATION

- Masons NZ Ltd. [11/2025] *Masons PrimeTherm ERS PIR Board Technical Data Sheet. V1.2.*
- Masons NZ Ltd. [08/2025] *Masons PIR Insulation Panels Material Safety Data Sheet. V1.0.*
- AWTA Product Testing. [14/11/2025] *Test report: 25-004316.*



1. Where a standard is referenced it is to be read as amended by the acceptable solution or verification method as applicable. 2. Sources of information also include the Building Act 2004 and its regulations, including the Building Code (Schedule 1 of the Building Regulations 1992), Acceptable Solutions and Verification Methods, and relevant cited standards. 3. The product is not subject to a warning or ban under section 26 of the Building Act. 4. For overseas manufacturer details, where applicable, refer to the company that is the holder of this pass™. 5. The quality and assurance that the supplied products meet the performance claims stated in this pass™ are the responsibility of the company that is the holder of this pass™. 6. The availability of the information about the supplied products required to be disclosed under s14G(3) is the responsibility of the company that is the holder of this pass™.

**SCAN OR CLICK THIS QR CODE TO ACCESS OR REQUEST THE RELEVANT SUPPORTING DOCUMENTATION FOR THIS PASS™.**

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Mason NZ Ltd confirms that if Masons PrimeTherm ERS PIR Boards is used in accordance with the requirements of this pass™ the product will comply with the NZ Building Code and other performance claims set out in this pass™ and the company has met all of its obligations under s14G(2) of the Building Act.

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*Kevin Brunton*

Kevin Brunton, Technical Director, TBB confirms that the process used to prepare this pass™ on behalf of Mason NZ Ltd has been undertaken in accordance with MBIE PTS guidelines and in accordance with the TBB pass™ process which is within the scope of TBB's ISO 9001 certification.

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