

PIR RIGID THERMAL INSULATION PANEL FOR BUILDING INSULATION

PRODUCT INFORMATION

PIRMAX HR PANEL is an Australian made modified PIR (Polyisocyanurate) rigid thermal panel that can be used in many applications, it is the next generation in high performance insulation products for commercial and residential developments. Designed to achieve excellent thermal value where minimal cavity is available. A thermoset material that will not melt and drip away like other insulators.

PIRMAX HR PANEL has amongst the highest thermal values of the rigid board insulation products, giving buildings continued thermal efficiency throughout their life span. A light weight closed cell (Polyisocyanurate) foam core panel, easy to handle and allows fast fixing to any application.

CFC free with zero Ozone Potential (ODP), and contains zero Volatile Organic Compounds (VOC's)

- ◆ Complies with AS/NZS 4859.1
- ◆ Amongst the highest thermal values of rigid board insulation due to the product's low thermal conductivity
- ◆ Achieves excellent fire hazard results when tested to AS/NZS 1530.3
- ◆ Achieves an External Wall classification of EW in accordance with AS 5113:2016 testing
- ◆ Not corrosive to metal over time
- ◆ Able to custom manufacture to different sizes and facing colours
- ◆ Fast manufacturing turnaround times

APPLICATIONS

Typical applications include:

- ◆ Wall Systems
- ◆ Internal ceiling cavity
- ◆ Raised Underfloor
- ◆ Ground Floor Slabs
- ◆ Ceiling Systems
- ◆ Roofs
- ◆ Domestic and Commercial Ducting

PIRMAX HR PANEL PRODUCT SPECIFICATIONS

PIRMAX HR PANEL PRODUCT DETAILS

Product Name	PIRMAX -HR Panel 'modified PIR rigid thermal insulation''
Product Code	PIRMAX HR _____(mm)
Thickness	20mm/25mm/30mm/40mm/50mm/60mm/70mm/75mm/80mm/90mm/100mm
Panel Size	2400mm x 1200mm (2.88m ²) WA : 2270mm x 1200mm (2.72m ²): 514mm x 2270mm (1.66m ²) Also can be cut to custom lengths and sizes
Facings	Silver/White/Black. Embossed aluminum sheet laminated to both sides, (Other colours are available upon request with an MOQ required)

PIRMAX HR PANEL PRODUCT DATA

*Thermal Conductivity	0.020 W/mk
Emittance	E0.03 (silver foil face)
Edge Treatment	Square Edge

PIRMAX HR PANEL PRODUCT R-VALUES

Product Thickness	Product R-Value
PIRMAX HR-Panel 20mm	R1.0
PIRMAX HR-Panel 25mm	R1.25
PIRMAX HR-Panel 30mm	R1.5
PIRMAX HR-Panel 40mm	R2.0
PIRMAX HR-Panel 50mm	R2.5
PIRMAX HR-Panel 60mm	R3.0
PIRMAX HR-Panel 70mm	R3.5
PIRMAX HR-Panel 75mm	R3.8
PIRMAX HR-Panel 80mm	R4.0
PIRMAX HR-Panel 90mm	R4.5
PIRMAX HR-Panel 100mm	R5.0

PIRMAX HR PANEL PRODUCT TESTING

Complies to AS/NZs 4859.1 and NCC/BCA Compliant. Tested to **AS ISO 9705:2003 Ceiling/Soffit		Facing Foil (Silver)	Facing Foil (White)	Facing Foil (Black)
Ignitability Index	AS/NZS 1530.3	0	0	0
Spread of Flame Index	AS/NZS 1530.3	0	0	0
Heat Evolved Index	AS/NZS 1530.3	0	0	0
Smoke Developed Index	AS/NZS 1530.3	1	2	4
Compressive Strength	AS 2498.3	>125 (kPa)	>125 (kPa)	>125 (kPa)
Water Vapour Resistivity	ASTM E96	>100 (MNs/g)	>100 (MNs/g)	>100 (MNs/g)
External Wall Classification	AS 5113:2016	EW Classification		

PIRMAX HR PANEL WALL APPLICATIONS

PIRMAX HR Insulation Panel has been evaluated and considered to comply with the requirements of the NCC/BCA in the following applications:

Within the internal part of the wall cavity for internal walls; or

Within the internal part of the wall cavity for external walls; or

Within the external panel wall stud frame (excluding curtain wall application).

LIMITATION

- ◆ PIRMAX HR Insulation Panel can be used on internal walls concealed within the wall linings by at least 10mm standard grade plasterboard or equivalent.
- ◆ PIRMAX HR Insulation Panel can be used on the internal side of the external wall either directly fixed or within the cavity provided it is shielded from the external part of the wall by fire rated material suitable stopped achieving an FRL of at least -/30/30 and shielded from the interior of a building by at least 10mm standard grade plasterboard or equivalent.

NATIONAL CONSTRUCTION CODE – VOLUME ONE 2016 AMENDMENT 1

- ◆ Clause A0.2 (b) complying with the Deemed-to-Satisfy Solution.
- ◆ Clause A2.2 sub-clause (a)(v) as evidence to support that the PIRMAX HR Insulation.
- ◆ Panel meets the nominated Deemed-to-Satisfy Provisions under an Engineering Certificate.
- ◆ Clause A2.2 sub-clause (a)(vii) as evidence to support that the PIRMAX HR Insulation Panel meets the nominated Deemed-to-Satisfy Provisions under an Engineering Certificate.

INTERNAL WALL CAVITY

- ◆ Located within an internal wall cavity either directly to the wall or friction fitted within studwork.
- ◆ Performance Requirement CP2 and CP4
- ◆ Clause C1.10
- ◆ Sub-clause (a)(ix) Other materials including insulation materials that comply with Specification C1.10 Clause 7 and used as an internal lining of external walls

PIRMAX HR PANEL PRODUCT TESTING

EXTERNAL WALL - INTERNAL SIDE | WITHIN CAVITY

Located within the internal side of an external wall or within the external wall cavity either directly to the wall or friction fitted within studwork.

Use of the PIRMAX HR Insulation Panel in a curtain wall application on the external part of the wall has not been tested or evaluated and is excluded from this report.

- ◆ Performance Requirement CP2 and CP8
- ◆ Installed within the wall cavity and shielded from the external part of the building by a fire rated material that achieves FRL of at least -/30/30. The material is to be sealed with the fire rated material.
- ◆ The area above an opening for a height of at least 900mm is to achieve an FRL of at least -/60/60 to achieve a compliant spandrel.
- ◆ The above provision of a spandrel in conjunction with the materials testing to AS 5113:2016 achieves an EW classification.

PIRMAX HR PANEL INTERNAL CEILING APPLICATIONS

PIRMAX HR Insulation Panel has been evaluated and considered to comply with the requirements of the BCA in the following applications:

Internal ceilings as a exposed or concealed soffit lining

National Construction Code – Volume One 2019

- ◆ Clause A2.1 (2) complying with the Deemed-to-Satisfy Solution.
- ◆ Clause A2.2 sub-clause (a)(iii) / (a)(v) as evidence to support that the PIRMAX HR Insulation Panel meets the nominated Deemed-to-Satisfy Provisions under an Engineering Certificate.
- ◆ Internal ceiling / soffit lining
- ◆ Performance Requirement CP2 and CP4
- ◆ Clause C1.10
- ◆ Sub-clause (a)(ii) ceiling linings that comply with Specification C1.10 Clause 4

PIRMAX HR PANEL SPECIFICATION NOTES

When specifying, state the following:

Product Name: PIRMAX HR PANEL _____mm

The insulation to be installed shall be PIRMAX HR Panel double sided reflective PIR insulation, comprised of Modified Polyisocyanurate Rigid board with foil facing on both sides, and an R value of _____. Product is Australian Made, manufactured by PIRMAX PTY LTD and shall be installed in accordance with manufacturers installation instructions.

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The installer/user of these products will need to determine if the product is suitable for use in the intended application. Information on this document is believed to be correct at the time of publication.

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*Denotes the aged K-Value in accordance with CSIRO test report XC34427/R1

**BCA Deemed to Satisfy and Performance Solution requirements, of the NCC Volume1:BCA2015-2016 (Ceiling Only)