

# TECHNICAL DATA SHEET

## PIRFORMATHERM® POLYISOCYANURATE (PIR) INSULATION

### Product description and typical applications

PiRFORMATHERM® insulation consists of a rigid, thermoset polyisocyanurate (PIR) board which is sandwiched between a reflective foil laminate and a Kraft paper facing. If desired, PiRFORMATHERM® insulation may also be supplied with the reflective foil laminate adhered to both surfaces.

PiRFORMATHERM® insulation is suitable for a diverse range of commercial, residential and industrial insulation applications. Its excellent thermal and fire performance properties makes it ideal for wall, ceiling and soffit lining applications. Other recommended uses for PiRFORMATHERM® insulation include ceiling plenum direct fix as well as cavity and framed wall installation. Exceptional thermal performance-for-thickness provides maximum insulation with minimal thickness, reducing ceiling plenum depth and wall thickness to maximise internal floor space.

The inherent rigidity and dimensional stability of the material makes it ideal for use in curtain walling, spandrel panels and under concrete slab soffits to improve the building envelopes thermal performance.

### Physical characteristics

Material R-value m²K/W	Nominal thickness mm	Dimensions* mm x mm	Area per sheet m²	Product code**
1.14	25	1200 x 2400	2.88	395610
1.36	30	1200 x 2400	2.88	395611
1.59	35	1200 x 2400	2.88	395612
1.82	40	1200 x 2400	2.88	395613
2.05	45	1200 x 2400	2.88	395614
2.27	50	1200 x 2400	2.88	395615
2.50	55	1200 x 2400	2.88	395616
2.73	60	1200 x 2400	2.88	395617
2.95	65	1200 x 2400	2.88	395618
3.18	70	1200 x 2400	2.88	395619
3.41	75	1200 x 2400	2.88	395620
3.64	80	1200 x 2400	2.88	395621
3.86	85	1200 x 2400	2.88	395622
4.09	90	1200 x 2400	2.88	395623
4.32	95	1200 x 2400	2.88	395624
4.55	100	1200 x 2400	2.88	395626

\*Custom made Cut to Length (CTL) boards available in lengths between 2.4 - 18m long. MOQ and lead times apply. Contact Fletcher Insulation for further advice.

\*\*Applies to standard boards with an upper reflective foil facing and a lower Kraft paper facing. Contact Fletcher Insulation for product codes relating to alternative facing options.

Reflective foil face emittance ≤0.05



For Total R-value guidance visit:  
[WWW.INSULATION.COM.AU/FLETCHERSPECPRO](http://WWW.INSULATION.COM.AU/FLETCHERSPECPRO)

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## Material data

Property	Result	Unit	Test method
Foam core apparent density	≥37	kg/m <sup>3</sup>	ASTM D 1622
Laminate squareness	≤6	mm/m	ASTM C 550
Laminate flatness	≤10	mm	ASTM C 550
Foam compressive strength (all directions at 10% compression)	≥100	kPa	AS 1366.2 AS2498.3
Foam closed cell content	>90	%	AS 1366.2 ISO 4590
Foam dimensional stability	≤3 (70C/95% RH, 20hrs)	%	AS 1366.2 AS 2498.6
	≤1 (-10C, 20hrs)	%	AS 1366.2 AS 2498.6
Water absorption	0.14	%	AS 1366.3 AS 2498.8
Water vapour transmission rate	81	µg/m <sup>2</sup> s	AS 1366.2 AS2498.5
Thermal Conductivity @23°C	≤0.022	W/mK	ASTM C 518

## Early fire hazard properties

Test	Result	Test method
Ignitability, flame spread, heat release, smoke release	0,0,0,1	AS/NZS 1530.3
Flame propagation - Median flame duration, eighth value - Median mass retained, eighth value	Max. 1 s Max. 1.5 s Min. 80% Min. 75%	AS1366.2 / AS2122.1
Reaction to fire (foam)	EuroClass E (B2)	EN 13501

## Moisture absorption

The closed cell structure of PiRFORMATHERM® does not allow water uptake by capillary action. PiRFORMATHERM® rigid board insulation is rot proof and durable.

## Thermal performance

PiRFORMATHERM® insulation varies with application and installation method. For complete Total R-value guidance visit [www.insulation.com.au/fletcherspecpro](http://www.insulation.com.au/fletcherspecpro)

## Green Star compliant

No ozone depleting substances are used in the manufacture or composition of PiRFORMATHERM®. Specification of PiRFORMATHERM® PIR insulation guarantees the use of ODP free insulation while also ensuring that no harmful levels of Volatile Organic Compounds (VOC's) are released. This allows for the incorporation of environmentally preferable insulation whilst also maintaining indoor air quality.

Manufactured in Australia, PiRFORMATHERM® insulation has lower embodied transport energy than similar imported products manufactured overseas.

## Specification notes

When specifying, state the following:

Product name: PiRFORMATHERM® insulation:

- Aluminium foil facing on one side and a Kraft paper on the other;
- Aluminium foil facing on both sides; or
- Kraft paper facing on both sides

Specialist facings as required for a broader range applications, contact Fletcher Insulation for further advice.

PiRFORMATHERM® insulation board dimensions shall be 1200mm x 2400mm x \_\_mm (specify thickness) or 1200mm x \_\_mm (specify cut to length requirement between 2400mm -18,000 mm long) x \_\_mm (specify thickness)

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