

# dctech

the knowledge to produce solutions



## DCT ISO<sup>2</sup> PANEL

RIGID POLYISOCYANURATE (PIR) THERMAL INSULATION



# DCT ISO<sup>2</sup> PANEL

## Polyisocyanurate (PIR) insulation

**DCT PIR ISO<sup>2</sup> Panel** is an Australian Made modified PIR (Polyisocyanurate) rigid thermal panel that can be used in many applications.

**DCT PIR ISO<sup>2</sup> Panel** is a light weight closed cell PIR consisting of a Polyisocyanurate foam inner core, thermoset between two layers of embossed aluminium foil facings.

**DCT PIR ISO<sup>2</sup> Panel** is a high performance insulation product for use in commercial and residential developments. Designed to achieve excellent thermal performance, and reduce thermal bridging, by providing a continuous barrier where minimal cavity is available.

### Benefits

- Complies with AS/NZS 4859.1:2018.
- Achieves excellent fire hazard results when tested to AS/NZS 1530.3.
- Achieves a Group 2 BCA/NCC fire classification when tested in accordance with AS 5637.1:2015 in a full room ISO 9705 test.
- Global GreenTag GreenRate™ Level A certified and a Global GreenTag™
- PlatinumHEALTH™ HeathRATE™ certification outcome.
- RED LIST FREE product, ingredients are 100% disclosed to 100 ppm, and do not contain any Red List chemicals. Manufactured in Australia for fast manufacturing turnaround times.

### Declare - Red List Free

**DCT PIR ISO<sup>2</sup> Panel** is a RED LIST FREE product, ingredients are 100% disclosed to 100 ppm, and do not contain any Red List chemicals. They have been shown to meet the Materials Petal requirements of the Living Building Challenge and emissions testing criteria for Health + Happiness Petal. **DCT PIR ISO<sup>2</sup> Panel** does not exceed maximum limits as defined by CDPH Standard Method v1.2-2017. **DCT PIR ISO<sup>2</sup> Panel** meets the requirements of the WELL Specification AE-ES-SPS-003 relating to WELL X11 Long Term Emission Control and WELL X12 Short Term Emission Control.



### Global GreenTag™ Accreditation

ISO<sup>2</sup> Panel has achieved GreenTag PHD™ HealthRATE Platinum giving transparency to the healthiness of the finished product, and has also achieved GreenRate™ Level A equating to 100% 'Sustainability Factor' in Green Star® rating tools' Sustainable Products credits. This certification will also assist with IWBI® WELL™ and USGBC LEED® Rating Tool credits.



# Declare.



# DCT ISO<sup>2</sup> PANEL

Product name:	DCT ISO <sup>2</sup> PANEL
Product description:	PIR insulation board for residential, industrial and agricultural buildings
Composition and surface finish:	Rigid polyisocyanurate (PIR) foam core board, faced on both sides with a embossed multi-layer coated aluminium foil.
Product Code:	DCT PIR ISO2 _____ (mm)
Colour:	Silver embossed aluminium sheet laminated to both sides
Edge Profile:	Square edge
Dimensions:	1200mm x 2400mm
Nominal Thickness:	25mm up to 100mm
Fire Classification:	Group 2 - AS 5637.1:2015
	AS 1530.3
	Ignitability: 0
	Spread of Flame Index: 0
	Heat Evolved Index: 0
	Smoke Index: 0-1
	Flame Propagation - Vertical Surface Ignition - AS 2122.1-1993
	SMOGR <sub>RC</sub> AS 5637.1:2015
Surface Corrosion and Delamination	AS 4859.1:2018
Emittance ASTM E 408-71	0.05
Emittance as 4200.1:2017	IR Reflective
Volatile Organic Compounds (VOC)	California Specificaiton 01350 <0.01 mg/m <sup>3</sup>
Maximum Service Temperature	California Specificaiton 01350 200° C

## DCT ISO2 Panel Sepcification Notes

When specifying, state the following:

Product Name: DCT PIR ISO2 Panel \_\_\_\_\_mm

The insulation to be installed shall be DCT PIR ISO2 Panel System supported by a 15 Year System Warranty.

Group 2 AS ISO 9705:2003 (R2016) and AS 5637.1:2015 fire classification with an R Value of \_\_\_\_\_. All insulation panels shall be Global GreenTag GreenRate™ Level A certified with a Global GreenTag Product Health Declaration™ (GreenTag PHD™) and a Global GreenTag™ PlatinumHEALTH™ HeathRATE™ certification outcome. Must be Declare Certified and RED LIST FREE.

Product is Australian Made, and shall be installed in accordance with manufacturers installation instructions.

**technical hotline: 1800 051 100**

# DCT ISO<sup>2</sup> PANEL

## Polyisocyanurate (PIR) insulation

Nominal thickness	DCT PIR ISO2 R-Value (m2K/W)
	Declared Product R-value at 23°C
25 mm	1.05
30 mm	1.30
40 mm	1.90
45 mm	2.00
50 mm	2.35
60 mm	2.85
70 mm	3.30
75 mm	3.55
80 mm	4.00
90 mm	4.50
100 mm	5.00

### Ceilings & Soffit Installation Summary

The installation summary has been compiled based upon empirical testing in accordance with AS 5637.1:2015 and its reference standard AS ISO 9705:2003 (R2016). Any variation to this install recommendation will need to be referred to DCTECH, or the design team on the project. Please contact us for a full system installation guide which includes further detailed information.

The system comprises of the following:

- DCT PIR ISO2 Panels
- Approved insulation fasteners (please refer to the full system installation guide for recommended fasteners)
- AFC100 (100mm) reinforced self-adhesive tape.

For a typical 2400mm x 1200mm DCT PIR ISO2 panel, a minimum of 7 insulation fasteners per board is required ( $\geq 2.43$  fixings per m<sup>2</sup>).

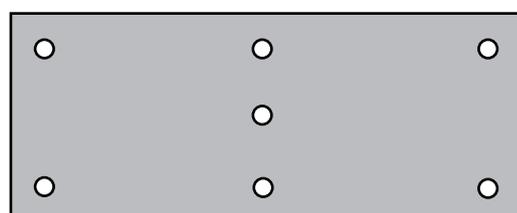
Where custom length long boards have been ordered, a minimum fixing density of 2.43 fixings per m<sup>2</sup> must be maintained. The fixing pattern should resemble a repeat pattern of the diagram below. For smaller panels, fixing should be located at 100mm from each edge, and a maximum 1100mm in the longitudinal direction and 1000mm in the cross direction, with every second row requiring a centre fixing as indicated below.

When fixing the panel to the soffit, start with the centre fixing, this will help support the weight of the board while the remaining fixings are installed.

The plastic fasteners must be installed at a perpendicular angle to the face of the panel. This will ensure a flush placement of the fastener on the DCT PIR ISO2 panel.

For ends or an edge where an exposed edge will be visible, please refer to taping instructions before fastening into position. Once the panel is fastened, attention must be given to the correct application of the AFC (100mm) reinforced aluminium foil tape. Please refer to the full system installation guide for further detailed information.

7 insulation fastener pattern



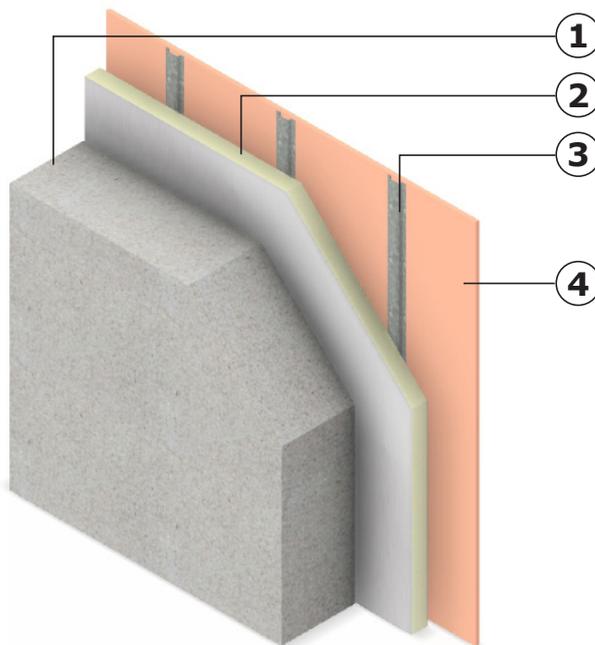
# about dctech

Dynamic Composite Technologies, or as we are now known DCTech, has been serving the Australian building industry with an extensive portfolio of technically advanced thermal insulation, geotextile membranes, rainscreen cladding brackets and fibreglass reinforced plastic wall and ceiling liner panels - which have been tried and tested to Australian building codes and standards.

This diverse portfolio provides DCTech with the ability to consider the building envelope holistically and hence develop a 'total system solutions' for a wide range of building applications. DCTech total system solutions incorporate high-performance building materials and innovative solutions which are designed to meet the continuously evolving requirements of the Australian building industry.

DCTech total system solutions address the risk of interstitial condensation, affords BCA, NCC and Greenstar compliant thermal efficiency and optimum acoustic and fire performance.

Ensure you specify the right system for the right application, look for the orange 'Powered by DCTech' stamp of approval.



Layer R-Values
Product / Material
Outside Surface
[1] Concrete
[2] DCT PIR ISO <sup>2</sup>
[3] Cavity 1
[4] Plasterboard
Inside Surface

**Dynamic Composite Technologies**

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