

## Coolfoil Rigid Panel Insulation - PIR

**Cool Foil PIR Rigid Panel Insulation** has been used successfully as foundation, wall and roof insulation in both commercial and residential environments.

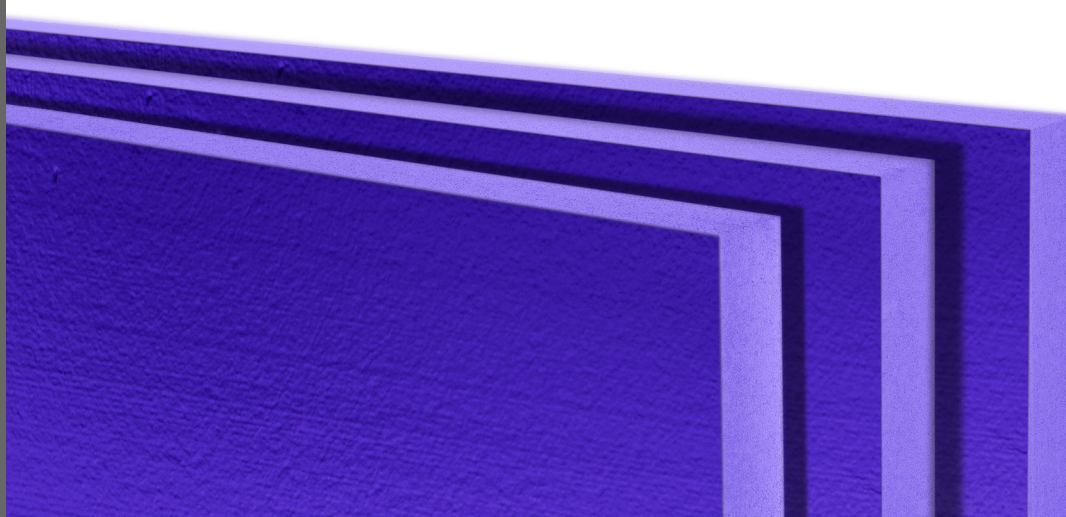
**Cool Foil PIR Rigid Panel Insulation** in these applications typically consists of a rigid PIR foam core board laminated on one or two sides with foil. PIR foam (also known as Polyisocyanurate or Polyiso foam) is a cellular thermoset plastic formed when two basic liquid chemicals, isocyanurate and polyol are combined; in the presence of a catalyst that helps the molecules to rearrange and join, a blowing agent to create closed cells in the structure and flame retardants. If the "art" of the process is correct, the result is an inert, non-nutritive, highly stable polyiso rigid foam that has the highest thermal insulating values of any conventional foam insulation commercially available today.

Due to its excellent thermal insulating efficiency at service temperatures ranging from -183C to +149C, PIR foam has become the standard for low temperature insulation applications such as:

- *Insulation for refrigeration in cool room panels and also refrigerated transport vehicles.*
- *In the building industry, already widely used in Europe and now extending to the Australian market. With the increase in R-values for buildings in Australia there has been increased demand for use of this product.*
- *In the mining industry for all types of insulation applications from piping to insulation of buildings.*

### Specifications

Description	25mm	35mm	40mm	50mm	65mm	75mm	100mm
Thermal R Value (m <sup>2</sup> .K/W)	1.09	1.52	1.9	2.5	2.85	3.26	4.35
Nominal Density (Kg/m <sup>3</sup> )	40	40	40	40	40	40	40
Water Absorption	Nil	Nil	Nil	Nil	Nil	Nil	Nil
Compressive Strength @ 10% Deformation (kpa)	360	360	360	360	360	360	360
Fire Resistance	Group 1	Group 1	Group 1	Group 1	Group 1	Group 1	Group 1
Mean Peak heat release rate when exposed to 50kW/m <sup>2</sup> irradiance (mj/m <sup>2</sup> )	182.2	182.2	182.2	182.2	182.2	182.2	182.2
Mean Total heat release when exposed to 50kW/m <sup>2</sup> irradiance (mj/m <sup>2</sup> )	9.5	9.5	9.5	9.5	9.5	9.5	9.5
Mould growth	Nil	Nil	Nil	Nil	Nil	Nil	Nil
Ozone depleting gases	Nil	Nil	Nil	Nil	Nil	Nil	Nil



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