

# Technical Data Sheet

## X-Therm PIR

### Description:

X-Therm PIR is a premium product for the insulation of timber-framed, steel-framed and masonry buildings. It is a high-performance insulation board made of expanded rigid Polyisocyanate (PIR) closed cell foam free of CFC or HCFC. It is bonded between two saturated fibreglass facers.

### Typical Use:

- Installed as an overlay to masonry buildings
- As a substrate over timber/steel framed buildings

### Expectation:

An inert, rigid foam product PIR does not settle over time, thus ensuring the R-value for the life of the building.

### Technical Data:

Typical thicknesses:	50mm
Average initial thermal conductivity ([EN12667] Value determined at 10 °C)	$\lambda = 0.028$ W/mK thicknesses from 30 to 70 $\lambda = 0.026$ W/mK thicknesses from 80 to 110 $\lambda = 0.025$ W/mK thicknesses from 120 to 140
Declared Thermal Resistance R-Value (m <sup>2</sup> K/W)	50mm - R1.79
Board density (Average value with facing characteristics)	35 kg/m <sup>3</sup> ± 1.5
Compressive strength (Value determined at 10% deformation [EN 826])	from 150 to 160 kPa depending on the thickness
Euroclass reaction to fire ([EN 13501 -1] [EN 13501 -2] [EN 13823 -SBI])	E
Specific heat capacity	1464 J/kg K
Water vapour diffusion resistance factor	$\mu = 56 \pm 2$

([EN 12086])	
Water absorption (Total immersion for 28 days [EN 12087])	less than 2%w
Acoustic isolation to wall ([UNI EN ISO 140-3] [UNI EN ISO 717-1])	52 dB
Pull through ([EN 16382])	more 750 N
Stability to the temperature	Used in a range of continuous temperatures included between -40 °C and +120 °C. For a short time, they can also resist temperatures up to + 200 °C, or corresponding to the temperature of molten bitumen, without particular problems.

**Surface Preparation:**

If the substrate has been left exposed to UV / sunlight for more than two weeks, dust and dirt may build up on the surface, the surface may also discolour (yellow) you must remove all surface dust, oxidation, and other contaminants. Use a rasp or a stiff broom to prepare the substrate

**Application:**

Check should be made using a straight edge to ensure the wall is flat, plumb and true. Any irregularities should be taken out by straightening using a rasp.  
The Render coating is not designed to straighten deviations which exceed the specified Resene Construction Systems Render System thickness.

**Environmental and Safety:**

Ensure PIR does not enter waterways. Contain in bags to ensure loose material is not blown away. There are currently many locations around the country that provide access to recycling services. Many of these recycling providers also offer pick up and drop off services, to ensure you can recycle hassle-free. They are also committed to environmentally sound recycling processes and ensuring that PIR can be recycled and reused many times over.