



# PIR PANEL

**GreenStuf® PIR is a polyisocyanurate (PIR) slab insulation that comes with an embossed foil layer on both sides.**

## APPLICATIONS

GreenStuf® PIR Panel is designed to be installed as a rigid insulation, providing superior building thermal performance and energy efficiency. Is suitable for use on the external side of framed walls for continuous insulation and between framing within the wall cavity. Suitable for timber, steel frame, concrete and block wall constructions. GreenStuf PIR Panel is also a solution for concrete ceiling (soffit) interior lining applications. It can be direct fixed to areas where a higher thermal performance is required.

To ensure Building Code compliance, architects and building designers are advised to consult an engineer or the relevant NZ standards before specifying thermal insulation. For information and assistance, please contact your GreenStuf account manager.

## TECHNICAL

**NZ Building Code Compliance:** When installed in accordance with the manufacturer's instructions, GreenStuf PIR Panel will satisfy the 50 year durability clause NZBC B2.3.1 (a). GreenStuf PIR Panel meets the relevant clauses of NZBC C3.4(a) Prevention of Fire, E3 Internal Moisture, F2 Hazardous Building Materials, and contributes to meeting H1 Energy Efficiency and G6 Acoustic Design requirements.

**Fire Regulations:** GreenStuf PIR Panel may not be suitable for all applications, as stipulated in the NZBC. Please consult a fire engineer when specifying GreenStuf PIR Panel or contact your GreenStuf account manager for further information.

### Fire Ratings:

AS 1366.2

Flame propagation rating/result: Complies

Tested to AS 2122.1 method as required by AS 1366.2

Report number: 23-001571

Needle Flame Test (IEC 60695-11-5:2016): Pass

**Durability:** GreenStuf PIR Panel has a 50 Year Durability Warranty

**Thermal Performance:** GreenStuf PIR Panel has been aged and tested to EN 13165:2012+A2:2016 in accordance with AS/NZS 4859.1:2018. Declared thermal conductivity reflects predicted performance after 25 years of use.

**Product Format:** GreenStuf PIR Panel is supplied as standard 1200mm (+/-2mm) x 2400mm (+/-5mm) sheets in cream colour with embossed foil finish on both sides. Custom sizes may be available on request but are subject to minimum order quantities.

### Dimensional Stability:

GreenStuf PIR Panel shows good dimensional stability in extreme temperature conditions.

### Dimensional Change:

≤3% at 70°C, 95% RH, 20 hrs; ≤1% at -10°C, 20hrs

**Compressive Strength:** GreenStuf PIR Panel achieves a compressive strength of at least 150 kPa. Although not recommended, this means in principle that each m<sup>2</sup> of GreenStuf PIR Panel can withstand up to 15 tonnes of static, evenly distributed loads.

**VOC Emissions:** GreenStuf PIR Panel has been tested for chemical emissions in accordance with ASTM D5116 and is considered as a low VOC product.

VOC emission rate: 0.047 mg/m<sup>2</sup>/hr

Green Star NZ Limit: 0.500 mg/m<sup>2</sup>/hr

CETEC Certificate P23020063

**Water Vapour Transmission:** GreenStuf PIR Panel has been tested to AS 2498.5 for water vapour transmission in accordance with AS 1366.2.

Water vapour transmission rate: 114.9 µg/m<sup>2</sup>s

**Vermin:** GreenStuf PIR Panel is naturally resistant to insect and vermin attack and does not contain chemical deterrents.

**Installation:** GreenStuf recommends that GreenStuf PIR Panel be installed in accordance with the manufacturer's instructions and NZS 4246 Energy Efficiency - Installing Insulation in Residential Buildings.

**Specification and substitution:** GreenStuf PIR Panel specification documents are available through Masterspec or can be downloaded from our website ([greenstuf.co.nz](http://greenstuf.co.nz)). Substitution of any products in NZBC compliant systems should not be accepted and we recommend this be made clear in all specification and tender documents.

**ISO Certifications:** GreenStuf is committed to Quality, Environmental, and Health & Safety best practice through our ISO 9001, ISO 14001, and ISO 45001 certified Quality, Environmental, and Health & Safety Management Systems.

**Packaging Recycling:** GreenStuf PIR Panel packaging is recyclable shrink wrap material. Please refer to your local recycling providers for drop-off and collection services.

**Environmental:** Recycled PET is used to formulate some of the chemical used in manufacturing GreenStuf PIR Panel. A 2400mm x 1200mm sheet of GreenStuf PIR Panel contains an equivalent 82 water bottles (250mL PET).

GreenStuf PIR Panel is Global GreenTag GreenRate Level C and HealthRATE Platinum certified and can be used to contribute to Green Star, Homestar, and WELL certification.

Manufactured using a CFC/HCFC-free blowing agent that has a zero Ozone Depletion Potential (ODP) and low Global Warming Potential (GWP).



PRODUCT	INITIAL R-VALUE AT 15°C	AGED R-VALUE AT 15°C	THICKNESS	DIMENSIONS	TOTAL AREA
GreenStuf PIR Panel 50mm	R2.40	R2.10	50mm	1200mm x 2400mm	2.88/m <sup>2</sup>
GreenStuf PIR Panel 60mm	R2.90	R2.55	60mm	1200mm x 2400mm	2.88/m <sup>2</sup>
GreenStuf PIR Panel 70mm	R3.40	R2.95	70mm	1200mm x 2400mm	2.88/m <sup>2</sup>
GreenStuf PIR Panel 80mm	R3.90	R3.40	80mm	1200mm x 2400mm	2.88/m <sup>2</sup>
GreenStuf PIR Panel 90mm	R4.35	R3.80	90mm	1200mm x 2400 mm	2.88/m <sup>2</sup>
GreenStuf PIR Panel 100mm	R4.85	R4.25	100mm	1200mm x 2400 mm	2.88/m <sup>2</sup>

**Made in New Zealand:** GreenStuf PIR Panel is proudly 100% manufactured within New Zealand.

For more information, please contact your GreenStuf account manager, or visit our website [greenstuf.co.nz](http://greenstuf.co.nz)

APL Report 98055 (Test conducted on GreenStuf Thermal Insulation).



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