



Datasheet

TemperTherm 100% Polyester Carpark & Soffit Insulation

TemperTherm 100% Polyester Insulation is proudly manufactured in NZ from thermally bonded polyester fibres, and contains minimum 45% recycled fibre from post-consumer recycled PET plastic.

TemperTherm 100% Polyester Carpark & Soffit insulation panels are designed for the thermal and acoustic insulation of masonry soffits and ceiling structures. TemperTherm Carpark & Soffit panels can also be used for thermal and acoustic insulation of steel portal commercial and industrial buildings.

TemperTherm 100% Polyester Carpark & Soffit insulation is available in a range of thicknesses and performance options, and is supplied as a grey-blend coloured panel. Our Carpark & Soffit range is BRANZ Appraised and supported by BRANZ ISO9705 fire testing, including double-layer installation.

TemperTherm 100% Polyester products provide both thermal and acoustic insulation. Our acoustic ranges utilise specialist low denier, high-volume hollow-core polyester fibres for superior sound absorption.

	Nominal Thickness	Product Format (Standard Size)	Thermal Conductivity (λ 50/90)		
TEMPERTHERM 100% POLYESTER CARPARK & SOFFIT INSULATION PANELS					
R1.8 Carpark & Soffit Insulation	70mm	1200mmx2400mm	0.0368 W/mK	✓	✓
R2.0 Carpark & Soffit Insulation	90mm	1200mmx2400mm	0.0371 W/mK	✓	✓
R2.2 Carpark & Soffit Insulation	90mm	1200mmx2400mm	0.0350 W/mK	✓	✓
R2.5 Carpark & Soffit Insulation	90mm	1200mmx2400mm	0.0345 W/mK	✓	✓
R2.8 Carpark & Soffit Insulation	140mm	1200mmx2400mm	0.0441 W/mK	✓	✓
R3.2 Carpark & Soffit Insulation	140mm	1200mmx2400mm	0.0430 W/mK	✓	✓
R3.6 Carpark & Soffit Insulation	140mm	1200mmx2400mm	0.0380 W/mK	✓	✓
R3.8 Carpark & Soffit Insulation	165mm	1200mmx2400mm	0.0400 W/mK	✓	✓

All variants are made to order and can be supplied in white, black or grey-blend
Custom sizes, densities, and thicknesses can be made on request with MOQ

KEY FEATURES

- Manufactured using 100% polyester fibres and contains a minimum 45% post-consumer recycled PET plastics.
- Moisture and vermin resistant.
- Cost effective, flexible, and easy to install.
- Non-toxic, non-allergenic, non-irritant, soft and safe to touch.
- Proudly Made in NZ.
- BRANZ Appraised and Eco Choice Aotearoa Certified.
- 50 Year Durability Warranty.



Temper
Therm

Datasheet

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NZBC COMPLIANCE

TemperTherm Polyester is designed for thermal & acoustic insulation of buildings, when installed in accordance with the manufacturer's instructions, TemperTherm 100% Polyester Insulation will perform for a minimum of 50 years, meeting the durability clause of NZBC B2.3.1(a). TemperTherm Polyester meets the relevant clauses of NZBC E3 Internal Moisture, F2 Hazardous Building Materials and can support a buildings ability to meet NZBC G6 Acoustic Design requirements and will support buildings to meet the H1 Energy Efficiency H1.3.1(a) & H1.3.2.E.

TemperTherm Polyester must be:

- Installed & maintained in a dry, protected environment.
- Installed in a building where provisions of NZBC E2 and E3 are met.
- Installed to the requirements of NZS 4226:2016: Energy Efficiency-Installing Bulk Thermal Insulation in Residential Buildings.

NZBC C1-C6 PROTECTION FROM FIRE

All polyester insulation is classified as combustible insulating materials, and may therefore not be suitable for all applications, as stipulated in NZBC C-Protection from Fire. We recommend you consult a Fire Engineer before specifying Polyester Insulation in buildings other than those described in Risk Group SH.

PIL Group Ltd polyester insulation has been tested to ISO 9705: 1993

Classification:	Group 1-S
Smoke Production Rate:	1.0m ² /s and therefore within the 5.0m ² /s limit
Product Range:	100% Polyester up to 1,800gsm
Report Ref:	BRANZ FC18133-01-2 (June 2024)
Classification:	Group 3
Smoke Production Rate:	1.0m ² /s and therefore within the 5.0m ² /s limit
Product Range:	100% Polyester 1,800gsm up to 4,800gsm, including double-layer install
Report Ref:	BRANZ FC18133-01-2 (June 2024)

IEC60695-11-5 Downlight Fire Standard

PIL Group Ltd Polyester Insulation has been tested and assessed as complying with IEC60695-11-5 Needle Flame Test.

Report Ref: Spectrum Lab Report No. 8616 (Aug 2023).

ENVIRONMENTAL

TemperTherm is proud to carry Eco Choice Aotearoa Certification for selected Polyester Thermal & Acoustic Insulation products.

All TemperTherm 100% Polyester Insulation products are manufactured in the same environmentally considerate way.

Eco Choice Aotearoa provides a credible and independent standard to guide people who want to purchase and use products that are proven to be better for the environment. At the foundation of Eco Choice Aotearoa are the technical specifications it develops, setting the most stringent, up to date standards for environmental compliance in business. New Zealand companies who meet or exceed these specification are permitted to display the ECA mark, widely recognised by New Zealanders as a badge of environmental leadership.

Eco Choice Aotearoa is internationally recognised as Level-A Eco-Label, and operates to internationally recognised standards and principles as a member of GEN, the Global Ecolabelling Network, which links a world of environmentally preferable products and services.

NZGBC GreenStar & HomeStar

TemperTherm 100% Polyester Insulation can support a buildings ability to meet the GreenStar & HomeStar accreditation. The specification and use of TemperTherm Polyester Insulation can support available 'points' for insulation materials.

For specification or technical support, please contact our Technical Team on 07 282 1184 or support@tempertherm.co.nz.



Temper
Therm

Datasheet

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VOC EMISSIONS

PIL Group polyester insulation has been tested by CETEC Foray Ltd to ISO16000 Part 9:2011 with ISO16000 Part 11: 2011 "Determination of the emission of volatile organic compounds from building products and furnishing - Emission test chamber method" (Emission testing method for Greenguard UL 2818 certification program specification).

Report Reference: V2012043

VOC (C6 to C16) Emission Concentration: 0.007 mg/m³

Formaldehyde Emission Rate: <0.003ppm

All other Target CREL VOCs and their emission rates are well below the maximum allowable concentrations in accordance with Table 27A (revised December 30, 2014) of the standard method.

POLYESTER MOISTURE ABSORPTION

TemperTherm Polyester Insulation does not absorb or wick moisture. Tested at 50°C d 90% Relative Humidity for four days, showed moisture absorption of 0.00% by weight.

Testing was conducted by AWTa in accordance with ASTM C739-97 (Section 12 Modified)

Ref: 23-003634 (Sep 23).

GREY-BLEND COLOUR

TemperTherm 100% Polyester Carpark & Soffit Insulation Panels are made using non-woven production techniques and some colour blending variation and marbling is typical batch to batch and throughout each production lot. This is an inherent feature of the product and not considered a manufacturing fault.

TemperTherm 100% Polyester Carpark & Soffit insulation is also available in black, white, and custom-grey colours as a made-to-order product. MOQ will apply. Please discuss your needs with our team.

BRANZ APPRAISAL

Selected TemperTherm Polyester Insulation products are BRANZ Appraised (Appraisal 1090 (2025)). A BRANZ Appraisal is a robust, in-depth and independent evaluation of a building product or system to assess its fitness for purpose and compliance with Building Code performance requirements.

ACOUSTIC PERFORMANCE

TemperTherm 100% Polyester insulation will assist sound reduction by absorbing and reducing airborne and reverberated noise. Performance will vary with different products and construction systems.

The TemperTherm brand offers a range of specialist 100% polyester acoustic products. Please visit our website for more information.

For acoustic design assistance, please get in touch with our team at support@tempertherm.co.nz

INSTALLATION

TemperTherm 100% Polyester Carpark & Soffit insulation panels are designed for the thermal and acoustic insulation of masonry soffits and ceiling structures. We recommend the installation is carried out by a suitably qualified tradesperson.

It is recommended that all insulation be installed in accordance with the manufacturer's instructions and the appropriate provisions of NZS:4246 Energy Efficiency - Installing Insulation in Residential Buildings.

Please refer to individual product installation instructions available from our website.



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Therm

Datasheet

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50 YEAR WARRANTY

PIL Group Limited takes pride in offering a 50-year Manufacturer's Durability Warranty for TemperTherm Insulation 100% Polyester Thermal and Acoustic Insulation, when installed in compliance with the manufacturer's installation instructions and NZ4246:Energy Efficiency - Installing insulation in residential buildings.

NON-CORROSIVE & NON-HAZARDOUS

Polyester is considered non-corrosive and non-hazardous.

MATERIAL SAFETY DATASHEET

TemperTherm 100% Polyester Insulation Material Safety Data Sheet is available from our website, or by contacting our Technical Team on 0800 467 855, or email support@tempertherm.co.nz

CUSTOM MANUFACTURING

We offer simple product customisation to support specific project needs. Product width variations will require Minimum Order Quantity of 200m² per variant. Please contact our Technical Team on 0800 467 855, or email support@premierinsulation.co.nz for more information.

PACKAGING & RECYCLING

Our TemperTherm Polyester Insulation packaging is recyclable – made from LDPE 4 material.

Please refer to your local recycling centres for recycling options or contact PIL Group for information on our Take Back & Recycling options for plastic packaging and insulation off-cuts.

SPECIFICATIONS & TECHNICAL SUPPORT

TemperTherm specification documents are available from our website. For specification or technical support please contact our Technical Team on 07 282 1184, or email support@tempertherm.co.nz.

TemperTherm

Manufactured by PIL Group Limited

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