



**Temper**  
Therm

# Datasheet

## TemperTherm 100% Polyester Acoustic PAB

TemperTherm 100% Polyester Insulation is proudly manufactured in NZ from thermally-bonded polyester fibres, and contains minimum 45% post-consumer recycled PET plastics. TemperTherm 100% Polyester PAB is a range of acoustic absorption panels designed for the control of reverberated noise in building interiors.

TemperTherm PAB is available in a range of thicknesses, densities, and performance options for controlling reverberated noise in theatres, auditoriums, halls, offices, retail, hospitality, gyms and indoor swimming pool complexes. TemperTherm 100% Polyester PAB can be supplied in black, white or grey-blend semi-rigid sheets.

TemperTherm 100% polyester acoustic ranges utilise specialist low denier, high-volume hollow-core polyester fibres for superior sound absorption.

	Density	Material Weight (gsm)	Nominal Thickness (mm)	NRC	Product Format (Standard Size)
<b>TEMPERTHERM 100% POLYESTER ACOUSTIC PAB PANELS</b>					
PAB 35-25	35Kg/m <sup>3</sup>	875gsm	25mm	NRC 0.70 (est)	1200mm x 2400mm
PAB 35-50	35Kg/m <sup>3</sup>	1,750gsm	50mm	NRC 0.90 (est)	1200mm x 2400mm
PAB 20-75	20Kg/m <sup>3</sup>	1,500gsm	75mm	NRC 0.85 (est)	1200mm x 2400mm
PAB 20-100	20Kg/m <sup>3</sup>	2,000gsm	100mm	NRC 0.95	1200mm x 2400mm

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.
- 50 Year Durability Warranty.

### 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.

#### TemperTherm Polyester must be:

- Installed and maintained in a dry protected environment.
- Installed in a building where provisions of NZBC E2 and E3 are met.
- Insulation should not be crushed, folded, or compressed unless this is a specific design requirement.
- Installed to the requirements of NZD4226:2016:Energy Efficiency-Installing Bulk Thermal Insulation in Residential Buildings.



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### 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-Production 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 <sup>2</sup> /s and therefore within the 5.0m <sup>2</sup> /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 <sup>2</sup> /s and therefore within the 5.0m <sup>2</sup> /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).

### ACOUSTIC PERFORMANCE

TemperTherm 100% polyester acoustic ranges utilise specialist low denier, high-volume hollow-core polyester fibres for superior sound absorption. TemperTherm 100% Polyester PAB insulation is designed to absorb reverberant noise in building interiors. TemperTherm PAB is designed to be exposed to the sound source.

Noise Reduction Coefficient (NRC) is a single number rating which represents the average of sound Absorption Coefficients of a material at specific mid-range frequencies, tested at 250, 500, 1,000, and 2,000 Hz octaves.

Ratings are typically expressed in decimals from 0.0 to 1.0, where 0.0 represents 0% absorbed sound, and 1.0 represents 100% absorbed sound.

For acoustic design assistance, please get in touch with our team at [support@tempertherm.co.nz](mailto:support@tempertherm.co.nz)

### GREY BLEND COLOUR

TemperTherm 100% Polyester PAB Insulation is 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 PAB insulation is available in black, white, and custom-grey colours as a made-to-order product.

MOQ will apply. Please discuss your needs with our team.

### NON-CORROSIVE & NON-HAZARDOUS

Polyester is considered non-corrosive and non-hazardous.

### INSTALLATION

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. Premier 100% Polyester PAB is designed to be left exposed to the sound source. TemperTherm PAB can be fixed to walls and ceilings using contact-type adhesives and/or mechanical fixings such as insulation anchors. Refer TemperTherm PAB Installation Instructions for more information.



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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/m<sup>3</sup>

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 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).

### 50 YEAR WARRANTY

PIL Group Limited takes pride in offering a 50-year Manufacturer's Durability Warranty for Premier 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.

### MATERIAL SAFETY DATASHEET

TemperTherm 100% Polyester Insulation Material Safety Data Sheet is available from our website, or by contacting our Technical Team on 07 282 1184, or email [support@tempertherm.co.nz](mailto:support@tempertherm.co.nz)

### 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.

### PROFESSIONALLY SUPPLIED & INSTALLED

TemperTherm Insulation offers a nationwide installer network to help ensure our TemperTherm 100% Polyester Insulation products are installed correctly and perform over the life of the building. TemperTherm Insulation branches are locally owned and operated.

Find your local branch on our website.

### 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](mailto:support@tempertherm.co.nz).

### TemperTherm

Manufactured by PIL Group Limited

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