




**Temper**  
Therm

# Datasheet

## TemperTherm 100% Polyester Sound Blanket Range

TemperTherm 100% Polyester Sound Blanket range is proudly manufactured in NZ from thermally-bonded polyester fibres, and contains minimum 45% recycled fibre from post-consumer recycled PET plastic. Our acoustic ranges utilise specialist low denier, high-volume hollow-core polyester fibres for superior sound absorption.

Our Sound Blanket range has been engineered for superior sound absorption and is designed as specialist sound control infill for metal-stud partition walls, and as an acoustic overlay for suspended ceilings.

	Nominal Thickness (mm)	Material Density (Kg/m <sup>3</sup> )	Material Weight (gsm)	Air Flow Resistivity (rayls/m)	GIB® Noise Control System Approved	
<b>TemperTherm 100% Polyester Sound Blanket Range</b>						
50mm Sound Blanket	50mm	14.70Kg/m <sup>3</sup>	735gsm	1,700	Yes	✓
60mm Sound Blanket	60mm	12.50 Kg/m <sup>3</sup>	750gsm	1,400		✓
70mm Sound Blanket	70mm	12.85 Kg/m <sup>3</sup>	900gsm	1,700		✓
75mm Sound Blanket	75mm	15.33 Kg/m <sup>3</sup>	1,150gsm	2,200	Yes	✓
120mm Sound Blanket	120mm	14.00 Kg/m <sup>3</sup>	1,680gsm	1,700		✓

### 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.
- Our products are Eco Choice Aotearoa Certified.
- 50 Year Durability Warranty.

### NZBC COMPLIANCE

TemperTherm Polyester is designed for thermal & acoustic insulation of buildings, when installed in accordance with the manufacturer's insuctions, 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 and can support a buildings ability to meet NZBC G6 Acoustic Design requirements.

#### 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 NZD 4226:2016: Energy Efficiency-Installing Bulk Thermal Insulation in Residential Buildings.

### INSTALLATION

It is recommended that all insulation be installed in accordance with the manufacturer's instructions and NZS:4246 Energy Efficiency - Installing Insulation in Residential Buildings. Please refer to individual product installation instructions available from our website.



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### ACOUSTIC PERFORMANCE

TemperTherm 100% Polyester insulation will assist sound reduction by reducing the resonating noise inside the construction cavity. Performance will vary with different construction systems.

Our Sound Blanket range has been independently assessed by Marshall Day Acoustics. The air flow resistivity and density are good indicators of the acoustic performance of insulation materials. The air flow resistivity is the ability of a porous material like polyester to slow airflow, and is measured in rays/m. Flow resistivity results are tabled on page 1.

Our Sound Blanket range will provide 4 - 5 STC point increase to a typical metal stud wall construction. An increase of 4 - 5 STC points will provide a noticeable difference. STC ratings give an approximate value for the reduction of noise in dB through a partition. Increased performance can be achieved by increasing the density of the wall linings, adding multiple layers of linings, and when the ceiling or wall linings are isolated from the frame using rubber clips or resilient steel clip system, or using a double-stud wall

Research and experience show that 10 dB of sound reduction is perceived as a halving of loudness. 1 - 2 dB is generally not noticeable, and 5 dB is perceived as a significant change.

TemperTherm 100% Polyester 50mm and 75mm Sound Blanket has been assessed by Marshall Day Acoustics to verify it is a suitable sound control infill alternative in GIB® Noise Control® Systems.

Refer: MDA Lt 002 20221180 GE (PIL Polyester 75mm Blanket Testing & Verification).

Refer: MDA Lt 008 20221180 GE (PIL Polyester 50mm Blanket Testing & Verification).

### 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).

### 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).

### NON-CORROSIVE & NON-HAZARDOUS

Polyester is considered non-corrosive and non-hazardous.



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### ENVIRONMENTAL

TemperTherm Insulation 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 email [support@tempertherm.co.nz](mailto:support@tempertherm.co.nz).

### 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.

### 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.

### 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.

### CUSTOM MANUFACTURING

We offer simple product customisation to support specific project needs. Product width variations will require Minimum Order Quantity of 200m<sup>2</sup> per variant. Please contact our Technical Team on 07 282 1184 or email [support@tempertherm.co.nz](mailto:support@tempertherm.co.nz) for more information.



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## TemperTherm 100% Polyester Sound Blanket Range

### 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

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**Declare.**