

Thermal & Acoustic Datasheet: 100% Polyester Insulation

PREMIER
INSULATION

Premier 100% Polyester Insulation is proudly manufactured in NZ from thermally-bonded polyester fibres for use in framed walls, ceilings, skillion roofs, suspended floors, and mid-floor applications in both residential and commercial construction. Our Polyester Insulation is available in a range of widths and performance options and is available in blanket, skillion and segment forms.

Key Features

- Manufactured using 100% polyester fibres and contain a minimum 45% previously recycled fibre.
- Moisture and vermin resistant.
- Cost effective, flexible, and easy to install.
- Non-toxic, non-allergenic, non-irritant, soft and safe to touch.
- Made in NZ and designed for New Zealand buildings.
- Select products are BRANZ Appraised and Eco Choice Aotearoa Certified.
- 50 Year Durability Warranty.

NZBC Compliance

Premier Polyester is designed for the thermal and acoustic insulation of buildings in accordance with the New Zealand Building Code (NZBC) H1 Energy Efficiency.

When installed in accordance with the manufacturer's instructions, Premier Polyester will perform for a minimum of 50 years, meeting the durability clause of NZBC B2.3.1 (a).

Premier Polyester meets the relevant clauses of NZBC E3 Internal Moisture, F2 Hazardous Buildings Materials and will support buildings to meet the H1 Energy Efficiency H1.3.1(a) & H1.3.2.E.

Premier Polyester must be:

- Installed and 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 4246:2016: Energy Efficiency-Installing bulk thermal Insulation in Residential Building.
- Premier Insulation should not be crushed, folded, or compressed.

Environment

Premier is proud to carry Eco Choice Aotearoa certification for selected Polyester Thermal & Acoustic Insulation products. All Premier 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 can meet or exceed these specifications are permitted to display the ECNZ mark, widely recognised by New Zealanders as a badge of environmental leadership.

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

NZGBC GreenStart & HomeStar

Premier 100% Polyester insulation can support a buildings ability to meet the GreenStar & HomeStar accreditation. The specification and use of Premier Polyester insulation will support all available 'points' for insulation materials. For specification or technical support please contact our Technical Team on 0800 467 855, or email sales@premierinsulation.co.nz

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.

BRANZ Appraisal

Premier Polyester Insulation range is BRANZ Appraised (Appraisal 1097 (2019) & Appraisal 1098 (2019)). A BRANZ Appraisal is a robust, in-depth and independent evaluation of a building product or system to assess it's fitness for purpose and compliance with Building Code performance requirements.

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.

Drained Cavity Wall Construction

Drained cavity wall construction with stud spacings greater than 450mm requires stud straps to prevent insulation bulging into the cavity. Straps must run at 300mm centres over the wall underlay.

Refer NZBC E2/AS1, 9.1.8.5 Wall Framing behind Cavities.

Double-Layer Ceiling Installations

For higher R-Value ceiling installations we recommend a 'double-layer' installation to reduce thermal bridging and heat-loss through timber construction. Premier polyester will support multiple layers allowing performance flexibility. The bottom layer of insulation should be installed between the trusses. The second (top) layer should be installed tight around the trusses with joins off-set to the bottom layer of insulation. This will ensure a full cover of insulation and reduce heat-loss through timber construction.

Acoustic Performance

Premier 100% Polyester insulation will assist sound reduction by reducing the resonating noise inside the construction cavity. Performance will vary with different construction systems. The Premier brand offers a range of specialist acoustic products. Please visit our website for more information. For acoustic design assistance, please get in touch with our team.

Polyester Moisture Absorption

TemperTherm Polyester Insulation does not absorb or wick moisture. Tested at 50°C and 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).

Specification & Technical Support


Premier specification documents are available on MasterSpec and on our Premier Insulation website. BPIR Declaration available from our website: premierinsulation.co.nz/resource-centre/#specifications

For specification or technical support please contact our Technical Team on 0800 467 855, or email: sales@premierinsulation.co.nz

	Nominal Thickness	Product Format	Standard Widths		
PREMIER 100% POLYESTER 70mm/90mm/140mm HIGH-DENSITY THERMAL INSULATION					
R1.8 70mm Wall	70mm	Segments	580mm		
R2.0 70mm Retro Wall	70mm	Segments	580mm		
R2.0 90mm Segments	90mm	Segments	360mm/560mm		✓
R2.2 90mm Segments	90mm	Segments	360mm/560mm	✓	✓
R2.5 90mm Segments	90mm	Segments	360mm/560mm	✓	✓
R2.6 140mm Segments	140mm	Segments	360mm/560mm		✓
R2.8 140mm Segments	140mm	Segments	360mm/560mm	✓	✓
R3.2 140mm Segments	140mm	Segments	360mm/560mm		
R3.4 140mm Segments	140mm	Segments	360mm/560mm		✓
R3.6 140mm Segments	140mm	Segments	360mm/560mm		

PREMIER 100% POLYESTER THERMAL CEILING BLANKET					
R1.8 115mm Ceiling Blanket	115mm	Roll Form	870mm		✓
R2.4 145mm Ceiling Blanket	145mm	Roll Form	870mm		✓
R2.9 185mm Ceiling Blanket	185mm	Roll Form	870mm	✓	✓
R3.3 200mm Ceiling Blanket	200mm	Roll Form	870mm	✓	✓
R3.6 225mm Ceiling Blanket	225mm	Roll Form	870mm	✓	✓
R3.8 225mm Ceiling Blanket	225mm	Roll Form	870mm		

PREMIER 100% POLYESTER MASONRY WALL & SERVICE CAVITY BLANKET					
R1.0 Blanket	45mm	Roll Form	580mm		
R1.3 Blanket	45mm	Segments	360mm/560mm		

	Nominal Thickness	Product Format	Standard Widths		
PREMIER 100% POLYESTER HD MID-FLOOR / SKILLION ROOF BLANKET					
R2.9 Mid-Floor-Skillion Blanket 115mm	115mm	Segments	870mm		
R3.2 Mid-Floor-Skillion Blanket 140mm	140mm	Segments	870mm		
R3.4 Mid-Floor-Skillion Blanket 140mm	140mm	Segments	870mm		✓
R3.6 Mid-Floor-Skillion Blanket 140mm	140mm	Segments	870mm		
R3.2 Mid-Floor-Skillion Blanket 165mm	165mm	Segments	870mm		
R3.6 Mid-Floor-Skillion Blanket 165mm	165mm	Segments	870mm		

PREMIER 100% POLYESTER SUSPENDED FLOOR THERMAL INSULATION					
R1.5 Retro-Fit Underfloor	100mm	Roll Form		✓	✓
R1.8 Retro-Fit Underfloor	115mm	Roll Form	450mm/ 510mm/ 600mm/	✓	✓
R2.0 Retro-Fit Underfloor	115mm	Roll Form		✓	✓
R2.6 140mm Underfloor	140mm	Roll Form	370mm/420mm		✓
R2.8 140mm Underfloor	140mm	Roll Form	370mm/420mm		✓
R3.2 140mm Underfloor	140mm	Roll Form	370mm/420mm		
R3.4 140mm Underfloor	140mm	Roll Form	370mm/420mm		✓
R3.0 165mm Underfloor	165mm	Roll Form	370mm/420mm		✓
R3.6 165mm Underfloor	165mm	Roll Form	370mm/420mm		✓
R3.8 165mm Underfloor	165mm	Roll Form	370mm/420mm		



	Nominal Thickness	Material Weight	Material Density	Product Format	Standard Widths
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PREMIER 100% POLYESTER ACOUSTIC WALL & MID-FLOOR BLANKET

Acoustic Wall & Mid-Floor Blanket	90mm	1,100gsm	12.2Kg/m ³	Roll Form	430mm/560mm
Acoustic IT Blanket*	90mm	1,350gsm	15.0Kg/m ³	Roll Form	560mm

PREMIER 100% POLYESTER ACOUSTIC METAL STUD PARTITION BLANKET

50mm Sound Blanket	50mm	735gsm	14.7Kg/m ³	Roll Form	600mm
60mm Sound Blanket	60mm	750gsm	12.5Kg/m ³	Roll Form	600mm
70mm Sound Blanket	70mm	900gsm	12.8Kg/m ³	Roll Form	600mm
75mm Sound Blanket*	75mm	1,150gsm	15.3Kg/m ³	Roll Form	600mm
120mm Sound Blanket	120mm	1,680gsm	14.0Kg/m ³	Roll Form	600mm

PREMIER 100% POLYESTER ACOUSTIC BAFFLE STACK

100% Polyester Acoustic Baffle Stack	120mm	1,000gsm	8.33Kg/m ³	Roll Form	600mm
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	Nominal Thickness	NRC Rating	Material Density	Product Format	Standard Widths
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PREMIER 100% POLYESTER ACOUSTIC ABSORBTION PANELS

PAB 35-25 (875gsm)	25mm	NRC 0.70 (est.)	35Kg/m ³	Panel	2400mm x 1200mm
PAB 35-50 (1,750gsm)	50mm	NRC 0.90 (est.)	35Kg/m ³	Panel	2400mm x 1200mm
PAB 20-100 (2,000gsm)	100mm	NRC 0.95	20Kg/m ³	Panel	2400mm x 1200mm

PAB is available as White, Grey, or Black Sheets, and is Made to Order. MOQ 250m² may apply.

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For specification or technical support please contact our Technical Team on 0800 467 855, or email: sales@premierinsulation.co.nz.