























Datasheet: Premier 100% Polyester Suspended Underfloor Blanket

Premier 100% Polyester Suspended Underfloor Thermal 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 Underfloor Blanket range has been designed to thermally insulate exposed timber joist floors in residential and commercial buildings.

	Nominal Thickness	Product Format	Standard Widths	Thermal Conductivity (À 50/90)		
PREMIER 100% POLYESTER SUSPENDED FLOOR THERMAL INSULATION						
R1.5 Retro-Fit Underfloor	100mm	Roll Form	450mm/ 510mm/ 600mm/ 650mm	0.0571 W/mK		
R1.8 Retro-Fit Underfloor	115mm	Roll Form		0.0524 W/mK		
R2.0 Retro-Fit Underfloor	115mm	Roll Form		0.0524 W/mK		
R2.6 140mm Underfloor	140mm	Roll Form	370mm/ 420mm	0.0511 W/mK		
R2.8 140mm Underfloor	140mm	Roll Form	370mm/ 420mm	0.0441 W/mK		
R3.2 140mm Underfloor	140mm	Roll Form	370mm/ 420mm	0.0430 W/mK		
R3.4 140mm Underfloor	140mm	Roll Form	370mm/ 420mm	0.0412 W/mK		
R3.0 165mm Underfloor	165mm	Roll Form	370mm/ 420mm	0.0497 W/mK		
R3.6 165mm Underfloor	165mm	Roll Form	370mm/ 420mm	0.0457 W/mK		
R3.8 165mm Underfloor	165mm	Slabs	370mm/ 420mm	0.040 W/mK		

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.
- Select products are BRANZ Appraised & Eco Choice Aotearoa Certified.
- 50 Year Durability Warranty.

BRANZ APPRAISAL

Selected Premier Polyester Insulation products are BRANZ Appraised (Appraisal 1097 (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.

Datasheet: Premier 100% Polyester Suspended Underfloor Blanket

NZBC COMPLIANCE

When installed in accordance with the manufacturer's instructions, Premier Polyester Insulation 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 & 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.

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:

Smoke Production Rate: Group 1-S
Product Range: 1.0m²/s and therefore within the 5.0m²/s limit
Report Ref: 100% Polyester up to 1,800gsm
BRANZ FC18133-01-2 (June 2024)

Classification: Group 3
Smoke Production Rate: 1.0m²/s and therefore within the 5.0m²/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

Premier Insulation 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 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

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

Datasheet: Premier 100% Polyester Suspended Underfloor Blanket

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.

ACOUSTIC PERFORMANCE

Premier 100% Polyester insulation will assist sound reduction, including booming from foot-fall by absorbing resonating noise under the floor. Performance will vary with different construction systems.

POLYESTER MOISTURE ABSORPTION

Premier 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).

PRODUCT SELECTION

Premier Polyester Suspended Underfloor Blanket is designed for use in exposed joist floors. Premier Polyester Underfloor Blanket is available in a range of widths and performance options and can be installed in enclosed, semi-enclosed and open sub-floor spaces.

Where wind wash is a concern in exposed open sub-floor spaces we suggest selecting the highest R-Value insulation suitable for the building. In fully open sub-floor spaces, it is recommended that a suitable lining material is also installed.

For NZBC H1 Compliant Underfloors

Premier Polyester High-Performance Underfloor is designed to support new-build construction meet NZBC H1 requirements. These products are thicker and denser than traditional Retrofit blankets, so product selection is important. The insulation blanket should be slightly wider than the space between the floor joists to ensure a tight friction fit. We recommend the insulation width is 20-30mm less than the floor joist construction centres. Premier Polyester High-Performance Underfloor is available in the following standard widths;

- Premier Polyester Underfloor @ 370mm wide is ideal for floor joists set at 400mm centres.
- Premier Polyester Underfloor @ 420mm wide is ideal for floor joists set at 450mm centres.

Other widths and options are available with minimum order quantities.

For Retrofitting Existing Underfloors

Our RetroFit underfloor insulation blankets are soft and offer excellent flexibility for insulating existing homes. Choose the product width to best suit the framing size. Joist spacings can vary in older homes so be sure to measure more than just one. You may need several widths of Premier Polyester Underfloor to complete the job and minimise waste.

Premier Polyester RetroFit Underfloor is available in the following widths:

- Premier Polyester Underfloor @ 450mm wide - ideal for joist spaces up to 430mm
- Premier Polyester Underfloor @ 510mm wide - ideal for joist spaces between 430mm and 500mm
- Premier Polyester Underfloor @ 600mm wide - ideal for joist spaces between 500mm and 580mm
- Premier Polyester Underfloor @ 650mm wide - ideal for joist spaces between 580mm and 630mm

Datasheet: Premier 100% Polyester Suspended Underfloor Blanket

	Nominal Thickness	Pack Format	Pack Size
Suspended Underfloor Range			
R1.5 Retro-Fit Underfloor	100mm	450mm x 11.11LM x 4 Rolls	20.0m ²
		510mm x 9.8LM x 4 Rolls	
		600mm x 11.11LM x 3 Rolls	
		650mm x 10.25LM x 3 Rolls	
R1.8 Retro-Fit Underfloor	115mm	450mm x 11.11LM x 4 Rolls	20.0m ²
		510mm x 9.8LM x 4 Rolls	
		600mm x 11.11LM x 3 Rolls	
		650mm x 10.25LM x 3 Rolls	
R2.0 Retro-Fit Underfloor	115mm	450mm x 11.11LM x 4 Rolls	20.0m ²
		510mm x 9.8LM x 4 Rolls	
		600mm x 11.11LM x 3 Rolls	
		650mm x 10.25LM x 3 Rolls	
R2.6 High-Performance Underfloor Blanket	140mm	370mm x 8.11LM x 5 Rolls	15.0m ²
		420mm x 8.93LM x 4 Rolls	
R2.8 High-Performance Underfloor Blanket	140mm	370mm x 8.33LM x 4 Rolls	12.5m ²
		420mm x 7.44LM x 4 Rolls	
R3.2 High-Performance Underfloor Blanket	140mm	370mm x 6.76LM x 4 Rolls	10.0m ²
		420mm x 7.93LM x 3 Rolls	
R3.4 High-Performance Underfloor Blanket	140mm	370mm x 5.74LM x 4 Rolls	8.50m ²
		420mm x 6.74LM x 3 Rolls	
R3.0 High-Performance Underfloor Blanket	165mm	370mm x 7.02LM x 5 Rolls	13.0m ²
		420mm x 7.73LM x 4 Rolls	
R3.6 High-Performance Underfloor Blanket	165mm	370mm x 5.74M x 4 Rolls	8.50m ²
		420mm x 6.74LM x 3 Rolls	
R3.8 High-Performance Underfloor Blanket	165mm	370mm x 1200mm x 8 Slabs	3.56m ²
		420mm x 1200mm x 8 Slabs	

NON-CORROSIVE & NON-HAZARDOUS

Polyester is considered non-corrosive and non-hazardous.

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.

50 YEAR WARRANTY

PIL Group Limited takes pride in offering a 50-year Manufacturer's Durability Warranty for all Premier branded polyester thermal and acoustic insulation. This warranty assures the durability of the insulation material when installed in compliance with the product BRABZ Appraisal, the product Installation Instructions, and NZ4246: Energy Efficiency - Installing insulation in residential buildings.

MATERIAL SAFETY DATASHEET

Premier 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@premierinsulation.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 Premier 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

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

Find your local branch on our website.

SPECIFICATIONS & TECHNICAL SUPPORT

Premier specification documents are available from our website. For specification or technical support please contact our Technical Team on 0800 467 855, or email support@premierinsulation.co.nz

Premier Insulation

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Appraisal No. 1097
Appraisal No. 1098



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