

Thermal & Acoustic Datasheet: Glasswool Insulation

PREMIER
INSULATION

Premier Glasswool is a resin-bonded Thermal & Acoustic insulation material made using up to 90% recycled glass. It is designed for use in framed walls, ceilings, and mid-floor applications in both residential and commercial construction. Our Glasswool is available in blanket and segment form.

Key Features

- Made from up to 90% recycled glass
- Resin bonded for enhanced durability
- Cost effective, flexible, and easy to install
- High R-Values, up to R7.3 single layer, supporting compliance to NZBC H1 Energy Efficiency requirements
- Non-combustible
- BRANZ Appraised & select products are Eco Choice Aotearoa Certified
- 50 Year Durability Warranty

NZBC Compliance

Premier Glasswool is designed for the thermal and acoustic insulation of buildings in accordance with the New Zealand Building Code (NZBC) H1 Energy Efficiency and G6 Acoustic Design requirements. When installed in accordance with the manufacturer's instructions and the provisions of the BRANZ Appraisal, Premier Glasswool will perform for a minimum of 50 years, meeting the durability clause of NZBC B2.3.1 (a) & (b). Premier Glasswool meets the relevant clauses of NZBC E3 Internal Moisture, F2 Hazardous Buildings Materials, and will support buildings to meet H1 Energy Efficiency H1.3.1(a) & H1.3.2 E

Premier Glasswool Insulation 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 Buildings.
- Premier Insulation should not be crushed, folded, or compressed.

Environment

Premier is proud to carry Eco Choice Aotearoa certification for selected Glasswool Insulation products. 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 Eco Choice Aotearoa 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 GEN, the Global Ecolabelling Network, which links a world of environmentally preferable products and services.

NZGBC GreenStar & HomeStar

Premier Glasswool insulation can support a building's ability to meet the GreenStar & HomeStar accreditation. The specification and use of Premier Glasswool 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 support@premierinsulation.co.nz.

Acoustic Performance

Premier Glasswool insulation will assist sound reduction by reducing the resonating noise inside the construction cavity. Performance will vary with different construction systems. For acoustic design assistance, please get in touch with our team

Independent verification for substitution in GIB® Noise Control® systems

GIB® Noise Control® Systems manual states that any substitutions of insulation infill must be independently verified to confirm the noise control performance of the system will be maintained. Marshall Day Acoustics have assessed Premier Glasswool R1.8 75mm & R2.2 90mm Thermal & Acoustic Blankets and have verified these two products as suitable substitutions. (REF: 20220540 GE (PIL Glasswool Testing and Verification)).

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. Installation instructions are available on 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. The bottom layer of insulation should be same thickness as the bottom chord, ideally high-density, and installed between the trusses. The second (top) layer should be installed tight around the trusses with joints off-set to the bottom layer of insulation. This will ensure a full cover of insulation and reduce heat-loss through the timber.

Professionally Supplied & Installed

Premier Insulation offers a nationwide installer network to help ensure our Premier Glasswool 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 through Masterspec. BPIR Declaration is 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 support@premierinsulation.co.nz

Premier Insulation

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| | Nominal Thickness | Standard Widths | Material Density | Thermal Conductivity (Å 50/90) |  |  |
|---|-------------------|-----------------|------------------|--------------------------------|---|---|
| PREMIER GLASSWOOL 90mm WALL, MID-FLOOR & HD CEILING BLANKETS | | | | | | |
| R2.2 Thermal & Acoustic HD Segments 70mm | 70mm | 580mm | 24Kg/m3 | | | |
| R1.8 Thermal & Acoustic Blanket 75mm* | 75mm | 1,200mm | 12Kg/m3 | 0.0403 W/mK | ✓ | ✓ |
| R2.2 Thermal & Acoustic Blanket 90mm* | 90mm | 1,200mm | 12Kg/m3 | 0.0399 W/mK | ✓ | ✓ |
| R2.4 Thermal & Acoustic Blanket 90mm | 90mm | 1,200mm | 18Kg/m3 | 0.0375 W/mK | ✓ | ✓ |
| R2.6 Thermal & Acoustic Blanket 90mm | 90mm | 1,200mm | 24Kg/m3 | 0.0338 W/mK | ✓ | ✓ |
| R2.8 Thermal & Acoustic Blanket 90mm | 90mm | 1,200mm | 32Kg/m3 | 0.0317W/mK | ✓ | ✓ |

*Approved for GIB Noise Control Systems

| PREMIER GLASSWOOL 140mm WALL, MID-FLOOR & SKILLION ROOF | | | | | | |
|--|-------|---------|---------|-------------|---|---|
| R3.2 115mm Wall-Mid-Floor-Skillion Segments | 115mm | 430mm | 22Kg/m3 | 0.0354 W/mK | ✓ | ✓ |
| R3.2 140mm Wall-Mid-Floor-Skillion Blanket | 140mm | 1,200mm | 11Kg/m3 | 0.0425 W/mK | | ✓ |
| R3.6 140mm Wall-Mid-Floor-Skillion Blanket | 140mm | 1,200mm | 16Kg/m3 | 0.0386 W/mK | ✓ | ✓ |
| R4.0 140mm Wall-Mid-Floor-Skillion Blanket | 140mm | 1,200mm | 24Kg/m3 | 0.0332 W/mK | ✓ | ✓ |
| R4.5 165mm Skillion Roof Segments | 165mm | 430mm | 20Kg/m3 | 0.0347 W/mK | | ✓ |

| PREMIER GLASSWOOL MASONRY WALL & SERVICE CAVITY BLANKET | | | | | | |
|--|------|---------|---------|-------------|--|---|
| R1.0 Masonry & Service Cavity Blanket 40mm | 40mm | 1,200mm | 13Kg/m3 | 0.0405 W/mK | | ✓ |
| R1.3 Masonry & Service Cavity Blanket 50mm | 50mm | 1,200mm | 16Kg/m3 | 0.0385 W/mK | | ✓ |

| | Nominal Thickness | Standard Widths | Material Density | Thermal Conductivity (Å 50/90) |  |  |
|---|-------------------|-----------------|------------------|--------------------------------|---|---|
| PREMIER GLASSWOOL CEILING SEGMENTS | | | | | | |
| R3.6 Ceiling Segments 175mm - 430mm | 175mm | 430mm | 8Kg/m3 | 0.0478 W/mK | ✓ | ✓ |
| R4.1 Ceiling Segments 195mm - 430mm | 195mm | 430mm | 8Kg/m3 | 0.0468 W/mK | ✓ | ✓ |
| R5.2 Ceiling Segments 230mm - 430mm | 230mm | 430mm | 10Kg/m3 | 0.0423 W/mK | ✓ | ✓ |
| R6.3 Ceiling Segments 260mm - 430mm | 260mm | 430mm | 12Kg/m3 | 0.0412 W/mK* | | ✓ |
| R7.3 Ceiling Segments 275mm - 430mm | 275mm | 430mm | 16Kg/m3 | 0.0365 W/mK | ✓ | ✓ |

| PREMIER GLASSWOOL CEILING BLANKETS | | | | | | |
|---|-------|---------|---------|-------------|---|---|
| R3.3 Ceiling Blanket 145mm | 145mm | 1,200mm | 12Kg/m3 | 0.0417 W/mK | | ✓ |
| R3.6 Ceiling Blanket 155mm | 155mm | 1,200mm | 12Kg/m3 | 0.0410 W/mK | ✓ | ✓ |
| R4.1 Ceiling Blanket 175mm | 175mm | 1,200mm | 12Kg/m3 | 0.0405 W/mK | ✓ | ✓ |

