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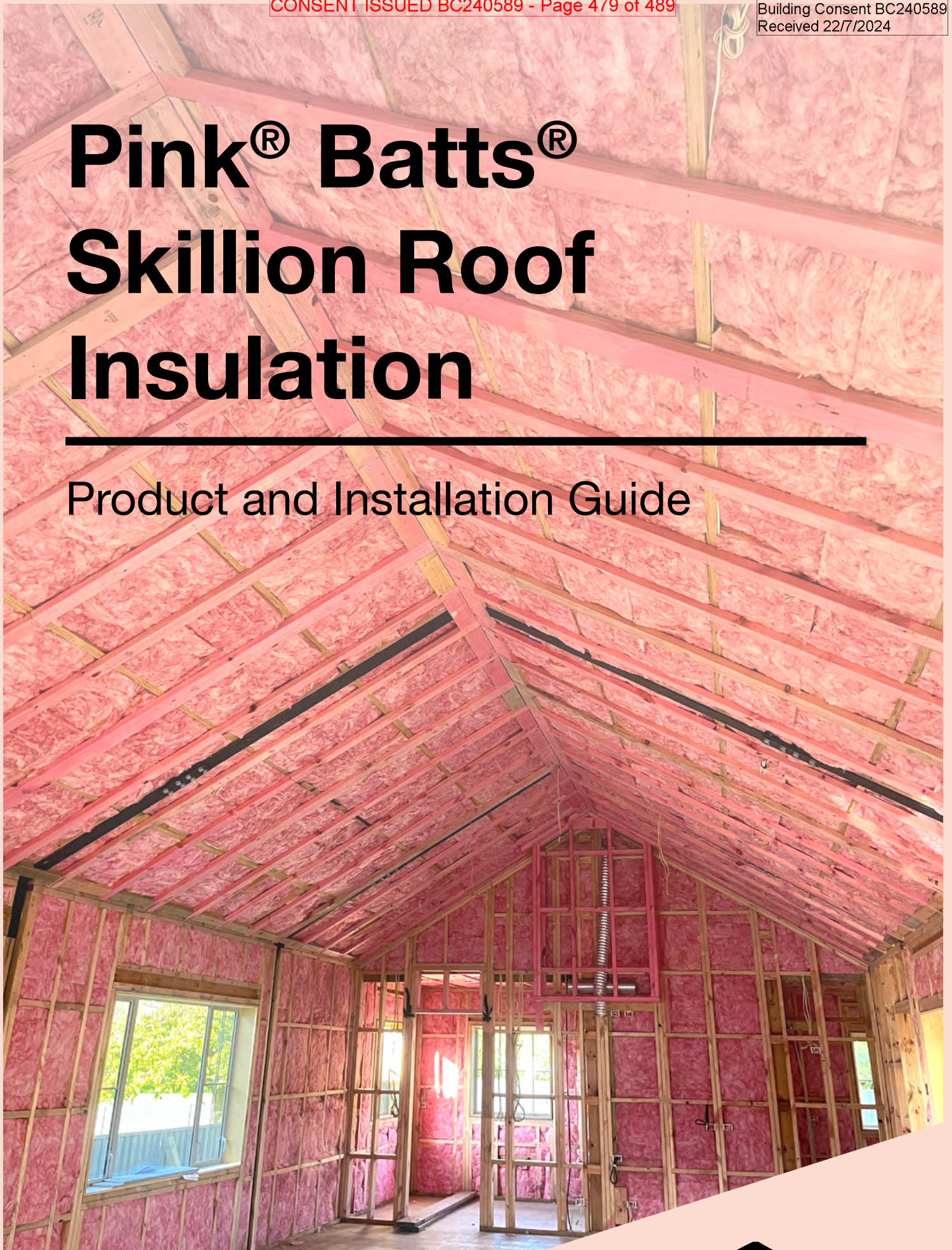






Pink® Batts® Skillion Roof Insulation

Product and Installation Guide



WAIMAKARIRI DISTRICT COUNCIL
Plans and specifications APPROVED in accordance
with the Building Act 2004, clause 49 and the Building
Regulations 1992, Clause 3
BC240589 22/08/2024 Chrisk


BROUGHT TO YOU BY COMFORTECH®

Pink® Batts® Skillion Roof Insulation

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Product Specifications

PRODUCT GLASS WOOL RANGE	Product Code	Size (mm)	Nominal Stabilised Thickness* (mm)	Nominal Total Area Per Bale (m²)	Approx. Coverage Per Bale (m²)	Eco Choice Aotearoa	Environmental Product Declaration	BRANZ Appraisal Number
ROOF – SKILLION THERMAL INSULATION								
R1.0 Pink® Superbatts®	7113210	1220 x 580	40 max	17	17.6	✓	✓	767
R3.2 Pink® Batts®	7110232	1220 x 432	115 max	3.7	3.9	✓	✓	767
R3.6 Pink® Batts®	7110236	1220 x 432	165 max	6.3	6.6	✓	✓	767
R4.5 Pink® Batts®	7110245	1220 x 432	165 max	3.2	3.3	✓	✓	767
R5.0 Pink® Superbatts®	7113250	1220 x 560	180 max	4.1	4.4	✓	✓	767
R6.0 Pink® Superbatts®	7113260	1220 x 560	230 max	4.1	4.4	✓	✓	767
R7.4 Pink® Superbatts®	7113274	1220 x 560	275 max	3.4	3.7	✓	✓	767

NOTE: The Pink® Superbatts® range is at least 25mm wider than standard Pink® Batts®.
* Coverage relates to standard structures (ie with framing allowance) therefore actual coverage may vary.



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Application

When standard insulation is too thick, use Pink® Batts® Skillion Roof insulation to maintain required clearances from roofing materials while providing the level of comfort and savings that comes with higher R-values.

Pink® Batts® Skillion Roof is designed to be used in skillion roof constructions while still achieving the minimum 25 mm clearance between the roof underlay and insulation in:

- New buildings and retrofits of existing ceilings
- Modern 'lean to' style extensions on existing homes
- Low profile roof design and restricted roof cavities

Cathedral style roofs and raked ceilings are generally skillion roof constructions where the ceiling line and roof line are in parallel.

Features and Benefits

- Specifically designed for Skillion Roofs – provides New Zealand Building Code (NZBC) levels of thermal insulation while providing minimum ventilation clearances. Higher R values to meet the new H1.
- Easy to install – Lightweight, flexible and simple design makes the installation fast and easy
- Internationally certified for Indoor Air Quality – Gives assurance that products meet strict chemical emissions limits
- Non-combustible – will not easily burn in the event of a fire
- Made from over 80% recycled glass – making sustainable use of waste
- Made in New Zealand - designed for New Zealand building conditions and reduces emissions associated with the importing of overseas manufactured product. New Pink® SuperBatts® range manufactured for rafters at 600mm centres.



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Critical Design Considerations

Historically there have been moisture related problems with skillion roofs. The following design factors should be considered to ensure your roof's performance and durability.

Internal moisture and condensation

- To prevent internal moisture entering the roof space, use vapour resistant lining in wet areas such as kitchens and bathrooms (e.g. gloss/oil based paint systems)
- Reduce airflow into the roof cavity through ceiling linings that are resistant to airflow (e.g. for a tongue and groove ceiling) by using a breather type air barrier
- Reduce penetrations through ceilings e.g. use sealed recessed downlights
- Special situations: Ski lodges, indoor pools/spas, cold stores may require an additional fully sealed vapour barrier

Ventilation

- A minimum 25mm clearance between the top of the insulation and the building underlay is required to provide a minimum amount of ventilation and reduce moisture build up in the roof cavity. However in areas of high humidity and/or large temperature differences, additional ventilation may be required to compensate for higher levels of condensation and water vapour. Consider using an insulation guard and ventilated battens to improve airflow over the insulation
- Ensure the insulation product you specify or install is guaranteed not to over recover or loft above the rafter depth; often nominal thickness measurements are not the maximum loft that segments will achieve

Trapped moisture

- To avoid trapping excessive levels of construction moisture into the roof cavity ensure timber, concrete and other building materials are dry before enclosing building

For more detailed information please refer to BRANZ Bulletin 525

How to reduce moisture related problems in skillion roofs

By providing additional ventilation, Pink® Batts® Skillion roof insulation products achieve substantially more ventilation clearance, while still maintaining the same R-value as the equivalent ceiling insulation products.

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Environment

Pink® Batts® insulation is a sustainable and energy efficient product.

- Manufactured using over 80% recycled glass, making sustainable use of waste
- Energy used during the manufacture of Pink® Batts® products is offset by the energy saved by a home fully insulated with Pink® Batts® products within 3-15 months¹
- Locally manufactured in New Zealand minimising shipping distances
- Recyclable packaging

Green Star NZ Credits

Green Star is a comprehensive environmental rating system for buildings; materials with certain attributes can receive points that contribute to the overall score of a rated home.

New Zealand Green Building Council (NZGBC) does not test or certify products; they rely on the work done by third party certification bodies and eco labels like Eco Choice Aotearoa. Further information is available at nzgbc.org.nz.

Eco Choice Aotearoa

All Pink® Batts® Skillion Roof insulation products have Eco Choice Aotearoa New Zealand Accreditation (refer to Product Specifications on page 1 for accredited products).

Independently assessed for:

- **Waste Minimisation:** Recycled content, and recycling of process waste
- **Energy Management:** Effective energy management policies and procedures
- **Manufacturing Process:** Not manufactured using blowing agents with a Global Warming Potential (GWP) or Ozone Depleting Potential (ODP)
- **Product Characteristics:** Durability and performance



While only BRANZ appraised products are eligible for Eco Choice Aotearoa, all Pink® Batts® thermal insulation products are manufactured in the same environmentally considerate way.

¹ (Beca Carter Hollings & Ferner Ltd, Energy Economics of Fibreglass Insulation, 2005)

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Health and Safety

Product Safety

Pink® Batts® insulation is a non-hazardous, safe product.

- IARC (International Agency for Research on Cancer) classifies the glass wool formulation used to manufacture Pink® Batts® products as Group 3: 'Not classifiable as to its carcinogenicity to humans'. This is the same classification as caffeine, tea, hair colouring, chlorinated drinking water and saccharin
- Pink® Batts® insulation is bio-soluble. In the unlikely event any fibres are inhaled into the lungs they will dissolve in the body fluids and be cleared from the body

Indoor Air Quality

- Pink® Batts® insulation is certified under the GREENGUARD Certification Program. Being certified for indoor air quality gives an assurance that products meet strict chemical emissions limits (including minimal levels of VOCs and formaldehyde), to help create healthier indoor environments

General Health

- Pink® Batts® insulation will assist in meeting the World Health Organisation recommendation for houses to be maintained at a minimum temperature of 18°C to provide a healthy and comfortable home
- A Wellington School of Medicine study found insulated houses resulted in families with fewer sick days and the economic benefit was double the initial cost of the insulation²

² Howden-Chapman, P. et al. "Effect of insulating existing houses on health inequality: cluster randomised study in the community" British Medical Journal, 2007, p334:460

Technical Data

Properties	Result	Test/Method/Standard	Test Results
Combustibility	Non-Combustible ✓	AS/NZS 1530.1:1994	Group Number 1S
Early Fire Hazards	✓	AS/NZS 1530.3:1993 - Ignitability (Range 0-20) - Spread of Flame Index (Range 0-10) - Heat Evolved Index (Range 0-10) - Smoke Developed Index (Range 0-10)	= 0 = 0 = 0 = 0-1
R-value	Various* ✓	AS/NZS 4859.1:2018	
Corrosion	Non-Corrosive N/A	AS/NZS 4859.1:2018-Glass wool exempt	
Moisture Absorption	Non-Hygroscopic N/A	AS/NZS 4859.1:2018-Glass wool exempt	
Vermin Resistance	No Food Source ✓	AS/NZS 4859.1:2018-Glass wool exempt	

* Stated thicknesses are values at which stated R-values are achieved and are likely to be minimum values. See table on page 1.



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New Zealand Building Code (NZBC) and Limitations

Pink® Batts® ceiling insulation when used, installed and maintained in accordance with the requirements outlined in this datasheet, will meet or contribute to meeting the following provisions of the NZBC:

NZBC Clause B2: Durability

Meets the requirement NZBC B2.3.1 a) 50 years and NZBC B2.3.1 b) 15 years

NZBC Clause E3: Internal Moisture

Contributes to meeting these requirements

NZBC Clause F2: Hazardous Building Materials

Meets this requirement and will not present a health hazard to people

NZBC Clause H1: Energy Efficiency

Contributes to meeting this requirement

Limitations

To meet the provisions of the NZBC as outlined in this datasheet, Pink® Batts® skillion roof insulation MUST be:

- Installed and maintained in a dry protected environment
- Installed in a building where the 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

Pink® Batts® skillion roof insulation should NOT be crushed, folded or compressed.

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Installation Instructions

Correct installation with no compression, gaps or folds is critical to ensure Pink® Batts® skillion roof insulation performance is not compromised.

Safety

Each installation is unique so prior to installation check for all hazards that may cause injury:

- Carry out any required repair work before starting installation
- Ensure there's adequate lighting to identify any hazards
- Treat all electrical cables as live, being careful not to cut or expose cables and wires
- Beware of other sharp objects (protruding nails, splinters etc.), pests (bees and wasps), loose boards and pipe work

Note: Seek professional advice if you are unsure how best to isolate the hazard or have a professional installer carry out the work on your behalf.

We recommend PinkFit® professional installers. PinkFit® are a nationwide network of professional installers who guarantee that their completed installation will meet the requirements of NZS 4246:2016

For your local PinkFit® installer call **0800 746 534** or visit pinkbatts.co.nz/installing-pink-batts/

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Installation

Any slight irritation to exposed skin caused by the fibres in glass wool, or through their inhalation, is harmless and temporary.

However for your comfort while installing, it's recommended you wear:

- Loose fitting work clothes which cover the arms and legs
- Covered shoes
- Dust mask
- Safety glasses

For safety while installing, it's recommended you use:

- Cut resistant gloves (if knife is used)

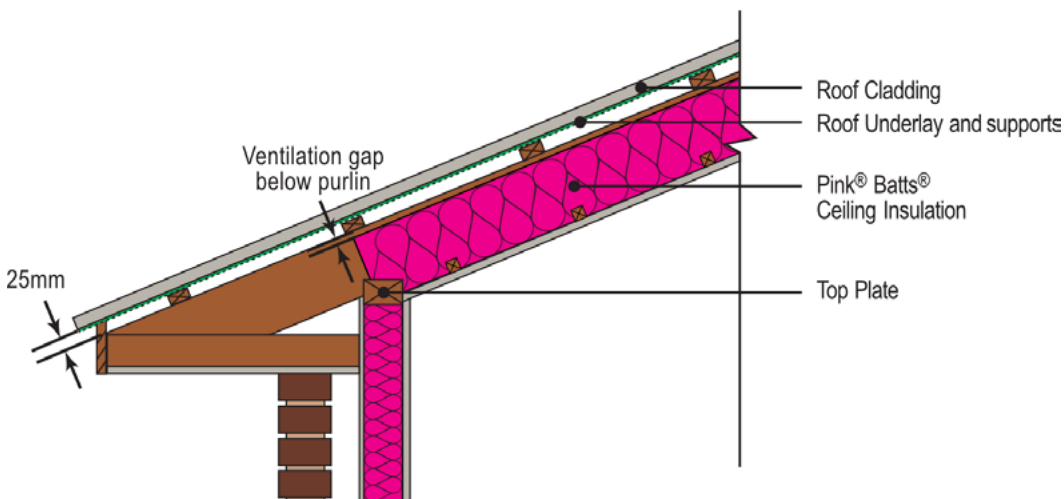
For an efficient installation, the following tools are recommended:

- Stable working platform
- Knife
- Tape measure

Installation Instructions

Confirm the correct product and R-value is used for the roof application. Refer to drawings/specifications where available. Skillion roof insulation may only be installed in roof cavities and is not suitable for installation in walls

- Retrofit of insulation in skillion roof cavities is typically done when the roof cladding is removed
- Ensure the product is installed and all cavities dry. If the product is wet, replace before installing
- Friction fit the product between framing, ensuring there are no gaps, folds or compression of the product
- If cutting is required, cut oversize by 5mm to ensure friction fit
- Install to the outer edge of the top plate covering at least 50% of it
- Fit insulation tightly around all roof penetrations, vent pipes, etc
- Fit Pink® Batts® insulation beneath electrical wiring and plumbing where possible
- Maintain a 25mm gap clearance between Pink® Batts® insulation and roofing underlay. See Figure 1 for typical installations.



Tip: To verify Building Code Compliance, staple a product label and installer information at an easy to find location away from any hot items such as downlights or water cylinders. An alternative is to supply the information to the building owner or authorised person.

Note: Joist cover with insulation can be achieved either with two separate layers of insulation or cutting a single thick layer of insulation such that it spills over the top when tightly fitted.

***Caution:** Electrical cables and equipment partially or completely surrounded with bulk thermal insulation may overheat and fail. This applies to wiring installed prior to 1989.

Refer to NZS 4246:2016 for further information related to the correct installation of insulation around electrical auxiliary devices and downlights.

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Clearances

Follow the clearances specified by the manufacturer; if they are not known then:

Recessed Luminaire

- CA rated recessed luminaires - None required, can close about however, do not install insulation on top of the recessed luminaire
- IC rated recessed luminaires - None required, insulation can be installed over the top of the recessed luminaire
- Unmarked - Minimum 100mm

Surface Mounted Luminaire

Minimum clearance 200mm; however it does not apply if the insulation is permanently shielded.

Controlgear

- If possible place it on top of the insulation and leave a minimum clearance of 50mm between controlgear and luminaire
- If not possible to place it on top of the insulation and leave 50mm from the insulation to the controlgear. Controlgear shall not sink into the insulation.
- Built in appliances - Minimum 50mm
- Enclosures containing electrical equipment - Minimum 50mm
- Fan/heat/light unit - Minimum 100mm
- Ventilation systems - Minimum 50mm
- Unducted mechanical fan units - Minimum 200mm
- Unducted passive vents that remain functional - Minimum 200mm
- Metal chimney and flues - Minimum 75mm
- Brick chimney - Minimum 50mm
- Roof underlay - Minimum 25mm

Storage and Maintenance

Pink® Batts® insulation should be protected from damage and weather. Store undercover in clean, dry conditions. The installed product should remain dry at all times. If the product becomes wet or damp, the source of dampness (e.g. leak in building) should be repaired and any wet or damp insulation should be removed and replaced with new insulation of an equivalent R-value.

Disposal of bags

Recyclable LLDPE bags are used for packaging of Pink® Batts® insulation. For further details download the relevant product data sheet from pinkbatts.co.nz





Comfortech Building Performance Solutions*
Certified QMS



pinkbatts.co.nz

0800 746 522

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9-15 Holloway Place, Penrose, Auckland

June 2023

