



BRANZ Appraised

Appraisal No. 238 [2023]

PINK® BATTS® INSULATION

Appraisal No. 238 [2023]

This Appraisal replaces BRANZ
Appraisal No. 238 [2018]



BRANZ Appraisals

Technical Assessments of
products for building and
construction.



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Product

- 1.1 Pink® Batts® Insulation is a range of resin-bonded, fibrous glasswool thermal insulating material for use in walls, ceilings and roofs of buildings. Pink® Batts® Insulation is pre-cut to suit a range of framing spacings.

Scope

- 2.1 Pink® Batts® Insulation has been appraised as a thermal insulation material for framed or part-framed walls, ceilings and roofs of domestic and commercial buildings.

Building Regulations

New Zealand Building Code [NZBC]

- 3.1 In the opinion of BRANZ, Pink® Batts® Insulation, if designed, used, installed and maintained in accordance with the statements and conditions of this Appraisal, will meet or contribute to meeting the following provisions of the NZBC:

Clause B2 DURABILITY: Performance B2.3.1 [a] not less than 50 years and B2.3.1 [b] 15 years. Pink® Batts® Insulation meets these requirements. See Paragraph 8.1.

Clause E3 INTERNAL MOISTURE: Performance E3.3.1. Pink® Batts® Insulation will contribute to meeting this requirement. See Paragraphs 13.1 and 13.2.

Clause F2 HAZARDOUS BUILDING MATERIALS: Performance F2.3.1. Pink® Batts® Insulation meets this requirement.

Clause H1 ENERGY EFFICIENCY: Performance H1.3.1 [a] and H1.3.2 E. Pink® Batts® Insulation will contribute to meeting these requirements. See Paragraphs 14.1 and 14.2.

Technical Specification

- 4.1 Pink® Batts® Insulation is a resin-bonded, fibrous, glasswool insulation, manufactured from recycled and/or virgin glass and cured urea extended phenolic resin.
- 4.2 Pink® Batts® Insulation is manufactured in a range of sizes to suit framing centres and cavity depths. Building Insulation Blanket (BIB) is supplied in rolls for commercial applications. Pink® Batts® Insulation is available as set out in Table 1.

Table 1: Pink® Batts® Insulation Product Table.

R-value	Length [mm]	Width [mm]	Nominal Thickness [mm]	Density [kg/m³]
Roof - Thermal Insulation				
1.8	1,220	432	95	8.3
2.2	1,220	432	115	8.2
2.6	1,220	432	140	7.0
2.6	1,220	432	110	10.5
3.0	1,220	432	160	8.2
3.2	1,220	432	170	6.9
3.6	1,220	432	180	7.2
4.0	1,220	432	195	8.1
4.5	1,220	460	210	8.5
5.0	1,220	432	220	9.5
5.0	1,220	460	225	9.5
6.0	1,220	432	235	13
6.0	1,220	460	245	11.7
7.0	1,220	432	260	15.8
7.0	1,220	460	275	12.6
7.0 [†]	1,220	460	275	12.6
Roof - Building Insulation Blanket				
1.2	24,000	1,200	50	12
1.8	20,000	1,200	75	12
2.4	16,000	1,200	95	12
2.6	14,000	1,200	105	12
3.2	12,000	1,200	125	12
3.6	10,000	1,200	140	12.5
Roof - Pink® Batts® Retrofit Insulation				
2.9	1,220	432	150	7.7
3.3	1,220	432	175	7.1
Wall - Masonry Insulation				
1.0	1,220	580	40	14
1.2	1,220	580	50	12.8
70 mm Wall Range - Thermal Insulation				
2.2	1,140	560	70	30

90 mm Wall Range - Thermal Insulation				
1.8	1,140	560	90	9.1
2.2	1,140	560	90	11.0
2.4	1,140	560	90	14.2
2.6	1,140	560	90	18.0
2.6 ¹	1,140	560	90	18.0
2.8	1,140	560	90	25.2
2.8 ¹	1,140	560	90	25.5
90 mm Narrow Wall Range - Thermal Insulation				
2.2	1,140	360	90	11.0
2.6	1,140	360	90	18.0
2.8	1,140	360	90	25.2
90 mm Steel Wall Range - Thermal Insulation				
2.2	1,220	610	90	11.0
2.6	1,220	610	90	18.0
140 mm Wall Range - Thermal Insulation				
3.2	1,140	560	140	9.6
3.6	1,140	560	140	12.4
4.0	1,140	560	140	17.6
4.3	1,140	560	140	28
140 mm Narrow Wall Range - Thermal Insulation				
3.2	1,140	360	140	9.6
4.0	1,140	360	140	17.6
4.3	1,140	360	140	28

¹Pink® Batts® Wall range R2.6 and R2.8 and Roof Insulation R7.0 are manufactured by Owens Corning Canada.

All Pink® Batts® Insulation products covered by this Appraisal and manufactured in New Zealand have the Environmental Choice licence.

- 4.3 Pink® Batts® Insulation is pink in colour and is baled in polythene bags with labelling in compliance with AS/NZS 4859.1.
- 4.4 Accessories used with Pink® Batts® Insulation, which are supplied by the insulation installer, are wire netting, plastic strapping and fixings.

Handling and Storage

- 5.1 Pink® Batts® Insulation must be stored under cover and in dry conditions. Heavy objects must not be stacked on the bales. The bales must be stored in an orientation that avoids excessive compression of the product.
- 5.2 In general, insulation products are sensitive to the length of time they are stored under compression packaging. Product that does not recover to its nominal thickness may not achieve the stated thermal resistance [R-value].

Technical Literature

- 6.1 This Appraisal must be read in conjunction with:
- Pink® Batts® Thermal Solutions: Product Guide, September 2023.
 - Pink® Batts® Ceiling Insulation Installation Product and Installation Guide, June 2023.
 - Pink® Batts® Wall Insulation Product and Installation Guide, June 2023.
 - Pink® Superbatts® Thermal Solutions: Installation Guide, April 2023.
 - Pink® Batts® Building Insulation Blanket (BIB) – Product data sheet, Feb22/1080RevD, February 2022.
 - Pink® Batts® Building Insulation Blanket (BIB) – Installation instructions, Feb22/1081/RevD, February 2022.
- 6.2 All aspects of design, use, installation and maintenance contained in the Technical Literature and within the scope of this Appraisal must be followed.

Design Information

General

- 7.1 Pink® Batts® Insulation is intended for use as thermal insulation to meet the requirements of the NZBC. Pink® Batts® Insulation can be used to meet the minimum schedule method R-values of the NZBC Verification Methods H1/VM1, H1/VM2, NZBC Acceptable Solutions H1/AS1 or H1/AS2. Greater construction R-values can be achieved where specific design is used. For construction R-values, refer to the BRANZ House Insulation Guide. Product R-values and dimensions are given in Table 1.
- 7.2 The R-value of Pink® Batts® Insulation has been determined by testing to AS/NZS 4859.1, which is an acceptable method in NZBC Acceptable Solution H1/AS1.
- 7.3 Pink® Batts® Insulation is designed to be friction-fitted between wall, ceiling or roof framing. It can also be laid directly on a ceiling lining, over ceiling battens or over joists/truss chords. In other horizontal situations, the insulation must be adequately supported by galvanised wire netting or some other suitable durable material.
- 7.4 When insulation is installed in a double layer over new or existing insulation, the possibility of compression of the bottom layer must be avoided, or reduction of R-values for the bottom layer of the formed system must be taken into account.
- 7.5 For new and existing buildings, the R4.5, R5.0, R6.0 and R7.0 Pink® Superbatts® ceiling products are designed to be notched around timber framing and to form a uniform layer above the timber framing, between and on the top of the truss chords.
- 7.6 At the roof perimeter, Pink® Batts® insulation is designed to be compressed at the roof perimeter rather than cut. To achieve the required construction R-value of R3.3 at the ceiling perimeter, a minimum product R-value of R3.5 and a minimum 115 mm height is required at the midpoint of the top plate to the underside of the insulation guard, to accommodate the compressed insulation. The Pink® Superbatts® range all exceed this product R-value requirement under compression with a 115 mm heel. If the roof slope is less than 20 degrees and the height is less than 115 mm, a raised heel will be required.
- 7.7 Where the insulation is installed in exterior walls, the nominal thickness of the insulation material must be selected to provide a snug close fit which touches all sides of the insulation cavity between the wall underlay and the interior wall lining.
- 7.8 Where the insulation is retrofitted in external walls without a wall underlay, and with direct-fixed claddings, the insulation must be at least 20 mm thinner than the framing to allow a gap of at least 20 mm between the insulation and the wall cladding. Horizontal straps must be stapled into the sides of the wall studs at 300 mm centres maximum as support before the insulation is installed. Refer also to NZS 4246, Section 5.4.2.

- 7.9 When the insulation is installed in a wall with a drained cavity, it is recommended that specific wall products with a controlled nominal thickness be used. Where the stud spacings are greater than 450 mm, an intermediate means of restraining the insulation from bulging into the cavity must be installed in accordance with NZBC Acceptable Solution E2/AS1, Paragraph 9.1.8.5.
- 7.10 Building Insulation Blanket is designed specifically for commercial roof and commercial wall applications. In residential applications, installation must be completed in accordance with NZS 4246.
- 7.11 The building envelope must be constructed to ensure the insulation remains dry during installation and throughout the life of the building.
- 7.12 The clearance requirements for heating appliances and downlights must be met, and reference made to the manufacturer's instructions and NZS 4246. See Paragraphs 10.1-10.3.

Durability

Serviceable Life

- 8.1 Where the building is maintained so that the provisions of NZBC Clauses E2 and E3 are met, and where the insulation is not crushed or exposed to conditions that will diminish its thermal performance [e.g. moisture], Pink® Batts® Insulation can be expected to have a serviceable life of at least 50 years.

Maintenance

- 9.1 Insulation that has become damp must be removed and the cause of dampness repaired. Cavities must be clean and dry before fitting new insulation of an equivalent thermal rating. NZS 4246 gives guidance on thermal insulation maintenance due to water damage.

Prevention of Fire Occurring

- 10.1 Pink® Batts® Insulation is classified a non-combustible material and need not be separated from heat sources such as fireplaces, flues and chimneys. However, when used in conjunction with, or attached to heat sensitive materials, the heat sensitive material must be separated or protected from heat sources. Part 7 of NZBC Verification Method C/VM1 and Acceptable Solution C/AS1, and NZBC Acceptable Solution C/AS2 provide methods for separation and protection of combustible materials from heat sources.

Downlights

- 10.2 Recessed luminaires shall be of the specified luminaire types and installed in accordance with NZBC Verification Method C/VM1 and NZBC Acceptable Solution C/AS1, Section 7.4.
- 10.3 Insulation materials must maintain a clearance of 100 mm to undefined recessed luminaires in existing buildings.

Fire Affecting Areas Beyond the Fire Source

- 10.2 Pink® Batts® Insulation products are classified non-combustible when tested to AS 1530.1 and can be assigned a Group Number of 1-S. When used in an occupied space, Pink® Batts® Insulation is not required to be enclosed by an internal lining. Refer to the relevant NZBC Acceptable Solution C/AS1 or C/AS2 for specific internal surface finish requirements.

External Moisture

- 11.1 The total building envelope must be weathertight and comply with the requirements of NZBC Clause E2 to ensure that the insulation remains dry in use.
- 11.2 The moisture content of the construction materials at the time of installing and enclosing the insulation must meet the requirements of NZBC Acceptable Solution E2/AS1, Paragraph 10.2 a), or a lower moisture content if required by the lining manufacturer.

Internal Moisture

- 12.1 Buildings must provide an adequate combination of thermal resistance, ventilation and space temperature to all habitable spaces, bathrooms, laundries and other spaces where moisture may be generated or may accumulate. This does not apply to Communal Non-residential, Commercial, Industrial, Outbuildings or Ancillary buildings.
- 12.2 Roofs and walls of housing complying with the Schedule Method for Compliance with NZBC Clause H1.3.2 E will have adequate thermal resistance. Other buildings may require more thermal insulation to satisfy the requirements of NZBC Acceptable Solution E3/AS1 than that to satisfy the energy efficiency provisions alone.

Energy Efficiency

- 13.1 Pink® Batts® Insulation will contribute to meeting the requirements of NZBC Clause H1, Performance H1.3.1 [a] and H1.3.2 E, by compliance with NZBC Verification Methods H1/VM1, H1/VM2, NZBC Acceptable Solutions H1/AS1 or H1/AS2. Refer to Paragraphs 7.1–7.8.
- 13.2 Pink® Batts® Insulation R-values have been determined by testing to AS/NZS 4859.1 and are given in Table 1.

Installation Information

Installation Skill Level Requirement

- 14.1 All design and building work must be carried out in accordance with the Pink® Batts® Insulation Technical Literature and this Appraisal. All building work must be undertaken by competent and experienced tradespersons conversant with Pink® Batts® Insulation.

General

- 15.1 Installation of Pink® Batts® Insulation must be in accordance with the Technical Literature and this Appraisal. NZS 4246 should be used as a guide for installing insulation in residential buildings.
- 15.2 The product must be installed only when the building is enclosed and when the construction materials have achieved the required maximum moisture content or less.
- 15.3 Pink® Batts® Insulation must be released from the packaging and allowed to re-loft prior to installation. The time to loft will depend upon the length of time the product has been packaged and stored.
- 15.4 Pink® Batts® Insulation is supplied in segment and blanket form [see Table 1] to suit framing layouts. The product is able to be cut to suit wall cavities and when fitted between roof or ceiling framing. The insulation must be neatly friction-fitted between framing members so that the potential for gaps and convective heat loss is reduced. In wall cavities, the insulation must be neatly friction-fitted between framing members to prevent sagging. In ceiling or roofs, the insulation may be fitted between framing members or fitted over framing members and butted tightly. The insulation must extend to the external wall top plate. The insulation must not be folded or compressed. A close even fit provides the most efficient thermal performance. Whenever possible, the insulation should be fitted beneath wiring or plumbing.
- 15.5 The clearance requirements for heating appliances and downlights must be followed. Refer also to NZS 4246.

Inspections

- 15.6 The Technical Literature, this Appraisal and NZS 4246 must be referred to during the inspection of Pink® Batts® Insulation installations.

Health and Safety

- 16.1 Refer to the Technical Literature and NZS 4246 for guidance on health and safety requirements such as personal protective clothing and installation hazard assessment.

Basis of Appraisal

The following is a summary of the technical investigations carried out:

Tests

- 17.1 Thermal resistance testing of Pink® Batts Insulation in accordance with AS/NZS 4859.1 has been completed. The results have been reviewed by BRANZ technical experts.
- 17.2 Tests have been carried out in accordance with AS 1530.1. Pink® Batts® Insulation is not deemed combustible according to the test criteria. The results have been reviewed by BRANZ technical experts.

Other Investigations

- 18.1 An assessment of the durability of Pink® Batts® Insulation has been made by BRANZ technical experts.
- 18.2 The manufacturer's Technical Literature has been reviewed by BRANZ and found to be satisfactory.

Quality

- 19.1 The manufacture of Pink® Batts® Insulation has been examined by BRANZ, including methods adopted for quality control. Details of the manufacturing processes, and quality and composition of the raw materials used were obtained and found to be satisfactory.
- 19.2 The range of Pink® Batts® Insulation products have been assessed for their environmental impact by the New Zealand Ecolabelling Trust and comply with the requirements of the Environmental Choice Specification, Licence No. 2504017 - Thermal [resistive type] Building Insulants. The products that have the Environmental Choice licence are noted in Table 1.
- 19.3 Tasman Insulation New Zealand Ltd (t/a Comfortech Building Solutions) is responsible for the quality of the product supplied.
- 19.4 Quality of installation of the product on-site is the responsibility of the installer.
- 19.5 Quality of maintenance of the building to ensure the insulation material remains dry is the responsibility of the building owner.

Sources of Information

- AS 1530.1:1994 Combustibility test for materials.
- AS/NZS 4859.1:2018 Thermal insulation materials for buildings.
- BRANZ House Insulation Guide [Sixth Edition], 2022.
- NZS 4246:2016 Energy efficiency - Installing bulk thermal insulation in residential buildings.
- Ministry of Business, Innovation and Employment Record of Amendments - Acceptable Solutions, Verification Methods and Handbooks.
- The Building Regulations 1992.



In the opinion of BRANZ, **Pink® Batts® Insulation** is fit for purpose and will comply with the Building Code to the extent specified in this Appraisal provided it is used, designed, installed and maintained as set out in this Appraisal.

The Appraisal is issued only to **Tasman Insulation New Zealand Ltd [t/a Comfortech Building Solutions]**, and is valid until further notice, subject to the Conditions of Appraisal.

Conditions of Appraisal

1. This Appraisal:
 - a) relates only to the product as described herein;
 - b) must be read, considered and used in full together with the Technical Literature;
 - c) does not address any Legislation, Regulations, Codes or Standards, not specifically named herein;
 - d) is copyright of BRANZ.
2. **Tasman Insulation New Zealand Ltd [t/a Comfortech Building Solutions]**:
 - a) continues to have the product reviewed by BRANZ;
 - b) shall notify BRANZ of any changes in product specification or quality assurance measures prior to the product being marketed;
 - c) abides by the BRANZ Appraisals Services Terms and Conditions;
 - d) warrants that the product and the manufacturing process for the product are maintained at or above the standards, levels and quality assessed and found satisfactory by BRANZ pursuant to BRANZ's Appraisal of the product.
3. BRANZ makes no representation or warranty as to:
 - a) the nature of individual examples of, batches of, or individual installations of the product, including methods and workmanship;
 - b) the presence or absence of any patent or similar rights subsisting in the product or any other product;
 - c) any guarantee or warranty offered by **Tasman Insulation New Zealand Ltd [t/a Comfortech Building Solutions]**.
4. Any reference in this Appraisal to any other publication shall be read as a reference to the version of the publication specified in this Appraisal.
5. BRANZ provides no certification, guarantee, indemnity or warranty, to **Tasman Insulation New Zealand Ltd [t/a Comfortech Building Solutions]** or any third party.

For BRANZ



Claire Falck

Chief Executive

Date of Issue:

30 October 2023