

Appraisal No. 632 [2018]

PINK® BATTS® SNUGFLOOR® INSULATION

Appraisal No. 632 (2018)

This Appraisal replaces BRANZ Appraisal No. 632 (2012) Amended 02 March 2023

BRANZ Appraisals

Technical Assessments of products for building and construction.



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Product

Pink® Batts® SnugFloor® Insulation is a resin-bonded, fibrous glass wool thermal insulating material for use in timber-framed floors. It is available in two widths to fit floor joist spacings.

Scope

2.1 Pink® Batts® SnugFloor® Insulation has been appraised for use as a thermal insulating material for timber-framed floors in new or existing domestic and commercial buildings.

Building Regulations

New Zealand Building Code (NZBC)

In the opinion of BRANZ, Pink® Batts® SnugFloor® 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 (b) 15 years and B2.3.1 (c) 5 years. Pink® Batts® SnugFloor® Insulation meets these requirements. See Paragraphs 8.1 and 8.2.

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

Clause H1 ENERGY EFFICIENCY: Performance H1.3.1 (a) and H1.3.2 E. Pink® Batts® SnugFloor® Insulation contributes to meeting these requirements. See Paragraphs 14.1 and 14.2.

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Technical Specification

Pink® Batts® SnugFloor® Insulation is a resin-bonded, fibrous glass wool insulation manufactured from recycled and/or virgin glass and cured urea extended phenolic resin. Pink® Batts® SnugFloor® Insulation is available as set out in Table 1.

Table 1: Pink® Batts® SnugFloor® Insulation product table

R-value	Nominal Thickness (mm)	Width (mm)	Length (mm)	Density (kg/m³)
2.6 ¹	110	480 or 580	1,220	13.3
3.2	140	480 or 580	1,220	9.6

^{1.} Pink® Batts® SnuqFloor® Insulation products that have the Environmental Choice license.

- 4.2 Pink® Batts® SnugFloor® Insulation is pink in colour and is baled in pink polythene bags with labelling in compliance with AS/NZS 4859.1.
- 4.3 Accessories used with Pink® Batts® SnugFloor® Insulation, which are supplied by the insulation installer, are plastic strapping and stainless steel or plastic staples.

Handling and Storage

- Pink® Batts® SnugFloor® 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 in compression packaging. Product that does not recover to its nominal thickness may not achieve the stated thermal resistance (R-value).

Technical Literature

- This Appraisal must be read in conjunction with:
 - Residential Insulation Product Guide, Feb 2023.
 - Pink® Batts® Snugfloor® Insulation Product Data Sheet, Feb 2023.
 - Pink® Batts® Snugfloor® Insulation Installation Instructions, Feb 2023.
- 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® SnugFloor® Insulation is intended for use as thermal insulation to meet the requirements of the NZBC. Pink® Batts® SnugFloor® 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 Pink® Batts® SnugFloor® Insulation R-values have been determined by testing to AS/NZS 4859.1, which is an acceptable method in NZBC Acceptable Solution H1/AS1.
- $Pink @ \ Batts @ \ SnugFloor @ \ Insulation is designed to be friction-fitted in new and retrofit installations$ 7.3 and must be supported with plastic strapping. The sections are supplied in two widths to suit floor joist spacing.
- 7.4 Pink® Batts® SnuqFloor® Insulation is suitable for use under floors which have an "enclosed perimeter foundation" as defined by NZS 4246. Where the subfloor area is not enclosed and subject to wind, such as in pole houses and raised floors, the insulation shall be protected by a suitable lining material.



- 7.5 Pink® Batts® SnugFloor® Insulation may also be suitable for use under floors where the perimeter foundation is enclosed by vertical or horizontal slats. Refer to Tasman Insulation New Zealand Ltd [t/a Comfortech Building Solutions] for site specific information.
- 7.6 The building envelope must be constructed to ensure that the insulation remains dry during installation and throughout the life of the building.
- 7.7 The clearance requirements for downlights must be met and reference made to the manufacturer's instructions and NZS 4246.

Durability

8.1 The durability assessment of Pink® Batts® SnugFloor® Insulation to meet the requirements of the NZBC is based on the difficulty of access and replacement, and the ability to detect failure of the insulation, both during normal use and maintenance of the building,

Serviceable Life

8.2 Where the building is maintained so that the provisions of NZBC Clauses E2 and E3 are met, and the where the insulation is not crushed or exposed to conditions that will diminish its thermal performance (e.g. moisture), Pink® Batts® SnugFloor® Insulation is expected to have a serviceable life of at least 50 years. Support accessories must also be selected according to the required serviceable life.

Maintenance

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

Prevention of Fire Occurring

10.1 Pink® Batts® SnugFloor® Insulation is considered a non-combustible material and need not to be separated from heat sources such as fireplaces, heating appliances, flues and chimneys. However, when used in conjunction with, or attached to heat sensitive materials, the heat sensitive material must be separated from heat sources such as fireplaces, heating appliances and chimneys. 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 one of the specified luminaire types and installed in accordance with NZBC Acceptable Solution 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

Control of Internal Fire and Smoke Spread

11.1 Pink® Batts® SnugFloor® Insulation has a Group Number of 1-S. When used in an occupied space, Pink® Batts® SnugFloor® Insulation may or may not need to be enclosed by an internal lining depending on the Risk Group. Refer to the relevant NZBC Acceptable Solutions C/AS1 and C/AS2 for specific internal surface finish requirements.

External Moisture

- 12.1 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.
- 12.2 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 flooring manufacturer.



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Internal Moisture

13.1 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.

Energy Efficiency

- Pink® Batts® SnuqFloor® 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.
- 14.2 Pink® Batts® SnugFloor® 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

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

General

- 16.1 Installation of Pink® Batts® SnugFloor® 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.
- 16.2 Pink® Batts® SnugFloor® Insulation must be installed only when the building is enclosed and when the construction materials have achieved the required maximum moisture content or less.
- 16.3 Pink® Batts® SnuqFloor® 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.
- 16.4 Pink® Batts® SnugFloor® Insulation is installed by friction-fitting the insulation between floor joists, and then supporting it with plastic strapping. The installation is critical so that the potential for gaps and convective heat loss is reduced. Pink® Batts® SnugFloor® Insulation Technical Literature must be referred to for installation details.
- 16.5 A minimum 100 mm qap must be maintained between Pink® Batts® SnuqFloor® Insulation and all plumbing pipes. This gap will also ensure that there is adequate access for servicing.
- 16.6 The clearance requirements for heating appliances, light fittings and downlights must be followed. Refer also to NZS 4246.

Inspections

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

Health and Safety

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



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Basis of Appraisal

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

Tests

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

Other Investigations

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

Quality

- 20.1 The manufacture of Pink® Batts® SnugFloor® 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.
- 20.2 Pink® Batts® SnugFloor® 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 license are noted in Table 1.
- 20.3 Tasman Insulation New Zealand Ltd (t/a Comfortech Building Solutions) is responsible for the quality of the product supplied.
- 20.4 Quality of installation of the product on-site is the responsibility of the installer.
- 20.5 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.

Amendments

Amendment No. 1, dated 06 September 2021.

This Appraisal has been amended to reflect building code updates relating to fire.

Amendment No. 2, dated 10 March 2022.

This Appraisal has been amended to incorporate the assessment of thermal test data conducted to AS/NZS 4859.1:2018.

Amendment No. 3, dated 18 May 2022.

This Appraisal has been amended to update Table 1.



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Amendment No. 4, dated 21 December 2022.

This Appraisal has been amended to reflect building code updates relating to H1 Energy Efficiency and the Appraisal holder was updated.

Amendment No. 5, dated 02 March 2023.

This Appraisal has been amended to update Table 1.





In the opinion of BRANZ, Pink® Batts® SnugFloor® 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.
- 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

Chelydra Percy Chief Executive

Date of Issue: 03 August 2018