BRANZ Appraised

Appraisal No. 878 (2025)

THERMAKRAFT ALUBAND WINDOW FLASHING TAPE

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This Appraisal replaces BRANZ Appraisal No. 878 (2019)

BRANZ Appraisals

Technical Assessments of products for building and construction.

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Product

1.1 Thermakraft Aluband Window Flashing Tape, in conjunction with the Thermakraft Corner Moulded Piece, is a flexible flashing tape system for use around framed joinery openings as a secondary weather resistant barrier.

1.2 The system is installed into and around the framed joinery opening over the wall underlay and exposed frame to cover both the face and edge of the opening framing. Thermakraft Aluband Window Flashing Tape is also used at joinery heads to seal flashing upstands to the wall underlay.

Scope

Timber Framing

2.1 Thermakraft Aluband Window Flashing Tape has been appraised for use as a flexible flashing tape with external wall cladding for timber-framed buildings within the following scope:

- the scope limitations of NZBC Acceptable Solution E2/AS1, Paragraph 1.1 for timber-framed buildings; and
- with a risk score of 0-20, calculated in accordance with NZBC Acceptable Solution E2/AS1, Table 2; and,
- situated in NZS 3604 Wind Zones up to, and including, Extra High.

Steel Framing

2.2 Thermakraft Aluband Window Flashing Tape has also been appraised for use as a flexible flashing tape with external wall cladding for steel-framed buildings within the following scope:

- the scope limitations of NASH Building Envelope Solutions Paragraph 1.1 for steel-framed buildings; and,
- with a risk score of 0-20, calculated in accordance with NASH Building Envelope Solutions; and,
- situated in NASH Standard Part 2 Wind Zones up to, and including, Extra High.

Specific Design

2.3 Thermakraft Aluband Window Flashing Tape has also been appraised for weathertightness when used on buildings subject to specific design up to an ultimate limit state (ULS) wind pressure of 2.5 kPa with wall cladding systems complying with NZBC Acceptable Solution E2/AS1 or a valid BRANZ Appraisal that specifies a flexible flashing system; and, with flexible wall underlays compatible with the flashing tape and complying with the NZBC; and, situated in NZS 3604 Wind Zones up to, and including, Extra High (refer to Paragraph 7.3).

Building Regulations

New Zealand Building Code (NZBC)

3.1 **In the opinion of BRANZ, Thermakraft Aluband Window Flashing Tape, 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 B2.3.2. Thermakraft Aluband Window Flashing Tape meets these requirements. See Paragraphs 8.1 and 8.2.

Clause E2 EXTERNAL MOISTURE: Performance E2.3.2. Thermakraft Aluband Window Flashing Tape contributes to meeting this requirement. See Paragraphs 7.1-7.4 and 11.1.

Clause F2 HAZARDOUS BUILDING MATERIALS: Performance F2.3.1. Thermakraft Aluband Window Flashing Tape meets this requirement.

Technical Specification

4.1 System components and accessories supplied by Kingspan Insulation NZ Ltd are:

- **Thermakraft Aluband Window Flashing Tape** is a polymeric faced, bituminous modified, self-adhesive tape with a release backing paper. The tape is supplied in rolls 200, 150 and 75 mm wide x 25 m long and 150 mm wide x 10 m long. The rolls are wrapped in clear polythene film.
- **The Thermakraft Corner Moulded Piece** is made from inert polyethylene and is coloured orange. It is used in conjunction with the Thermakraft Aluband Window Flashing Tape and building underlays as part of the Thermakraft Aluband Window Flashing Tape system.

4.2 Accessories used with the system which are supplied by the installer are:

- **Thermakraft Corner Moulded Piece Fixings** - staples, clouts or other temporary fixings to attach the corner mould to the framing prior to the installation of the Thermakraft Aluband Window Flashing Tape.
- **Scotch® Super 77™ Multipurpose Adhesive** - a clear spray primer.

Handling and Storage

5.1 Handling and storage of all materials supplied by Kingspan Insulation NZ Ltd, whether on-site or off-site, is under the control of the installer. Thermakraft Aluband Window Flashing Tape and accessories must be protected from damage and weather. Rolls must be stored under cover, in clean, dry conditions away from direct exposure to sunlight.

Technical Literature

6.1 This Appraisal must be read in conjunction with:

- Installation Guide - Thermakraft™ ALUBAND, Issue 6.0, August 2024.
- Product Data Sheet - Thermakraft™ ALUBAND, Issue 7.0, August 2024.

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 Thermakraft Aluband Window Flashing Tape meets the requirements of AC 148:2001 which is an alternative solution to the version of AC 148 referenced by NZBC Acceptable Solution E2/AS1 Paragraph 9.1.5 b) and NASH Building Envelope Solutions Paragraph 9.1.5 b). The installation method for Thermakraft Aluband Window Flashing Tape is an alternative solution to the installation method shown within NZBC Acceptable Solution E2/AS1, Figures 72A and 72B and NASH Building Envelope Solutions, Figures 72A and 72B.

7.2 The use of flexible flashing systems around window and door joinery openings is critical to assist the overall weathertightness performance of window and door joinery installations.

7.3 Thermakraft Aluband Window Flashing Tape is suitable for use over flexible wall underlays compatible with the flashing tape in NZS 3604 Wind Zones up to, and including, Extra High. In the Extra High Wind Zone, the flexible underlay must be installed over a rigid underlay complying with NZBC Acceptable Solution E2/AS1, Table 23 or NASH Building Envelope Solutions, Table 23.

7.4 Thermakraft Aluband Window Flashing Tape is designed to prevent air leakage and water penetration around window and door openings at framing junctions (e.g. at the sill trimmer and opening stud junction), and to keep any water that gets past the cladding, or through the joinery, from direct contact with the framing timber.

7.5 Thermakraft Aluband Window Flashing Tape is not designed to overcome poor detailing and workmanship of the window or door joinery installation. The system must not be considered in isolation, but be considered as part of the wall cladding system. Thermakraft Aluband Window Flashing Tape is designed to be used in conjunction with air seals and joinery flashing systems, not as a substitute.

7.6 When Thermakraft Aluband Window Flashing Tape is used in conjunction with LOSP (light organic solvent preservative) treated timber, the solvent from the timber treatment must be allowed to evaporate (generally at least one week) prior to the installation of the system.

Durability

8.1 Assessment of durability to meet the NZBC is based on difficulty of access and replacement, and the ability to detect failure of Thermakraft Aluband Window Flashing Tape both during normal use and maintenance of the building.

Serviceable Life

8.2 Provided it is not exposed to the weather or ultraviolet (UV) light for a total of more than 42 days, and provided the exterior cladding is maintained in accordance with the cladding manufacturer's instructions and the cladding remains weather resistant, Thermakraft Aluband Window Flashing Tape is expected to have a serviceable life equal to that of the cladding.

Maintenance

9.1 No maintenance is required for Thermakraft Aluband Window Flashing Tape. Regular checks, at least annually, must be made of the junctions between the joinery and wall cladding to ensure that they are maintained weathertight and that the primary means of weather resistance for the junction e.g. flashing, sealant, etc. continues to perform its function, to ensure that water will not penetrate the cladding.

Prevention of Fire Occurring

10.1 Separation or protection must be provided to Thermakraft Aluband Window Flashing Tape from heat sources such as fireplaces, heating appliances and chimneys. Part 7 of NZBC Acceptable Solution C/AS1 and NZBC Acceptable Solution C/AS2 provide methods for separation and protection of combustible materials from heat sources.

External Moisture

11.1 Where a cladding manufacturer specifies the use of generic flashing tapes around window and door joinery openings at framing junctions as part of their system, or they specify the use of flexible flashing tapes that comply with NZBC E2/AS1, Paragraph 9.1.5 b) or NASH Building Envelope Solutions Paragraph 9.1.5 b), Thermakraft Aluband Window Flashing Tape may be used.

Installation Information

Installation Skill Level Requirement

12.1 All design and building work must be carried out in accordance with the Thermakraft Aluband Window Flashing Tape Technical Literature and this Appraisal by competent and experienced tradespeople conversant with flashing tapes. Where the work involves Restricted Building Work (RBW) this must be completed by, or under the supervision of, a Licenced Building Practitioner (LBP) with the relevant Licence class.

General

13.1 The selected wall underlay must be installed in accordance with the manufacturer's instructions, and must completely cover the joinery opening. The underlay is then cut on a 45° angle away from each corner of the opening so the flaps can be folded into the opening and secured to the interior face of the timber framing.

13.2 Fit a Thermakraft Corner Moulded Piece into each of the bottom corners to create a seal at the corner junction. The corner piece must be fixed to the framing with staples or clouts.

13.3 Before the Thermakraft Aluband Window Flashing Tape is applied, the substrate surfaces must be clean, dry and free from any surface contaminants such as dust and grease that may cause loss of adhesion. When installing Thermakraft Aluband Window Flashing Tape on difficult to bond substrates, Scotch® Super 77™ Multipurpose Adhesive may be used. Ensure that the wall underlay/substrate is dry and free of dirt before applying the spray adhesive. Apply a light spray/coating of the spray adhesive onto the underlay/substrate. Wait for a minute to allow the spray adhesive to become tacky. When tacky to the touch, apply the flashing tape in the normal manner.

13.4 A length of Thermakraft Aluband Window Flashing Tape must be cut to the length of the sill plus 400 mm. The tape is installed flush with the interior face of the opening and is applied along the entire length of the sill and 200 mm up each jamb. The overhanging tape is cut at the corner of the opening to allow the tape to be folded onto the face of the building underlay. Ensure that adequate adhesion of the tape is achieved and that the tape is installed tight into the sill/jamb junction.

13.5 A 400 mm length of Thermakraft Aluband Window Flashing Tape must be installed 200 mm down the jamb and 200 mm along the lintel at each of the top corners of the window or door joinery opening. A 75 mm wide x 100 mm long sealing tape 'butterfly' must be installed at 45° across the corner of the head/jamb junction overlapping the corner by 3 mm to create a seal at the corner junction.

13.6 Thermakraft Aluband Window Flashing Tape must not be stretched. To avoid wastage, the tape can be lapped 100 mm minimum onto itself without reducing the performance of the Thermakraft Aluband Window Flashing Tape system.

13.7 If the Thermakraft Aluband Window Flashing Tape is exposed to the weather or UV light for more than 42 days, then it must be replaced with new material.

Installation Temperature

13.8 Thermakraft Aluband Window Flashing Tape must not be installed at temperatures of less than 5°C.

Inspections

13.9 The Technical Literature must be referred to during the inspection of Thermakraft Aluband Window Flashing Tape installations.

Basis of Appraisal

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

Tests

14.1 Testing of Thermakraft Aluband Window Flashing Tape has been completed by BRANZ to the requirements of ICC Evaluation Service Acceptance Criteria for Flashing Materials AC 148:2001. The adhesion of Thermakraft Aluband Window Flashing Tape to black bituminous Kraft building paper complying with the requirements of NZBC Acceptable Solution E2/AS1, Table 23 or NASH Building Envelope Solutions Table 23 and selected other synthetic wall underlays has been tested and found to be satisfactory.

Other Investigations

15.1 An assessment was made of the durability of Thermakraft Aluband Window Flashing Tape by BRANZ technical experts.

15.2 Site inspections were carried out by BRANZ to examine the practicability of installation.

15.3 The Technical Literature has been reviewed by BRANZ and found to be satisfactory.

Quality

16.1 The manufacture of Thermakraft Aluband Window Flashing Tape has not been examined by BRANZ, but details of the quality and composition of the materials used were obtained and found to be satisfactory.

16.2 The quality of supply to the market is the responsibility of Kingspan Insulation NZ Ltd.

16.3 Designers are responsible for the building design, and building contractors are responsible for the quality of installation of framing systems and wall underlays in accordance with the instructions of the designer.

16.4 The quality of installation, handling and storage on site is the responsibility of the installer in accordance with the instructions of Kingspan Insulation NZ Ltd.

Sources of Information

- ICC Evaluation Service, Inc, AC148 Acceptable Criteria for Flexible Flashing Materials, July 2001.
- NZS 3604:2011 Timber-framed buildings.
- NASH Building Envelope Solutions: 2019 Light steel framed buildings.
- NASH Standard Part Two: 2019 Light steel framed buildings.
- Ministry of Business, Innovation and Employment Record of amendments - Acceptable Solutions, Verification Methods and handbooks.
- The Building Regulations 1992.

BRANZ

In the opinion of BRANZ, Thermakraft Aluband Window Flashing Tape 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 Kingspan Insulation NZ Ltd, 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. Kingspan Insulation NZ Ltd:
   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 quality of work;
   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 Kingspan Insulation NZ Ltd.
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 Kingspan Insulation NZ Ltd or any third party.

For BRANZ

Claire Falck
Chief Executive

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07 January 2025