



BRANZ Appraised
Appraisal No. 1131 [2021]

WATERTIGHT FROST FLASHING TAPE

Appraisal No. 1131 [2021]



BRANZ Appraisals

Technical Assessments of
products for building and
construction.



Techno Wrapping Systems Ltd

PO Box 516
Silverdale
Auckland 0944
Tel: 021 167 3404
www.technowrapping.co.nz



BRANZ

BRANZ

1222 Moonshine Rd,
RD1, Porirua 5381
Private Bag 50 908
Porirua 5240,
New Zealand
Tel: 04 237 1170
branz.co.nz



Product

- 1.1 Watertight Frost Flashing Tape is a flexible flashing tape system for use around framed joinery openings.

Scope

- 2.1 Watertight Frost Flashing Tape has been appraised as a flexible flashing tape for use around framed joinery openings of buildings in the following scope:
 - the scope limitations of NZBC Acceptable Solution E2/AS1, Paragraph 1.1 for timber-framed buildings; or,
 - 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 NZBC Acceptable Solution E2/AS1 or NASH Building Envelope Solutions; and,
 - with wall cladding systems complying with NZBC Acceptable Solution E2/AS1, NASH Building Envelope Solutions or a valid BRANZ Appraisal that specifies a flexible flashing tape 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.

Building Regulations

New Zealand Building Code (NZBC)

- 3.1 In the opinion of BRANZ, Watertight Frost 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. Watertight Frost Flashing Tape meets these requirements. See Paragraphs 8.1 and 8.2.

Clause E2 EXTERNAL MOISTURE: Performance E2.3.2. Watertight Frost 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. Watertight Frost Flashing Tape meets this requirement.



Technical Specification

- 4.1 System components and accessories supplied by Techno Wrapping Systems Ltd are:
- **Watertight Frost Flashing Tape** is a self-adhering, flexible flashing tape. It is coloured black on the top surface and has a clear release liner.

Handling and Storage

- 5.1 Handling and storage of all materials supplied by Techno Wrapping Systems Ltd, whether on-site or off-site, is under the control of the installer. Watertight Frost 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 Refer to the Appraisals listing on the BRANZ website for details of the current Technical Literature for Watertight Frost Flashing Tape. The Technical Literature must be read in conjunction with this Appraisal. 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 Watertight Frost Flashing Tape meets the requirements of AC148 referenced by NZBC Acceptable Solution E2/AS1, Paragraph 9.1.5 b). The installation method for Watertight Frost Flashing Tape is an alternative solution to the installation method shown within NZBC Acceptable Solution E2/AS1, 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 Watertight Frost 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 Extra High Wind Zones, the flexible underlay must be installed over a rigid underlay complying with NZBC Acceptable Solution E2/AS1, Table 23.
- 7.4 Watertight Frost 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 Watertight Frost 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. Watertight Frost Flashing Tape is designed to be used in conjunction with air seals and joinery flashing systems, not as a substitute.
- 7.6 When Watertight Frost 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 Watertight Frost Flashing Tape both during normal use and maintenance of the building.

Serviceable Life

8.2 Watertight Frost Flashing Tape is expected to have a serviceable life equal to that of the cladding provided that:

- It is not exposed to the weather or ultraviolet (UV) light for a total of more than 90 days with flexible wall underlays.
- It is not exposed to the weather or UV light for a total of more than 180 days with rigid wall underlays.
- The exterior cladding is maintained in accordance with the cladding manufacturer's instructions and the cladding remains weather resistant.

Maintenance

9.1 No maintenance is required for Watertight Frost 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 Watertight Frost Flashing Tape from heat sources such as fireplaces, heating appliances and chimneys. Part 7 of NZBC Verification Method C/VM1 and Acceptable Solution C/AS1, and 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), Watertight Frost Flashing Tape may be used.

Installation Information

Installation Skill Level Requirements

12.1 All design and building work must be carried out in accordance with the Techno Wrapping Systems Ltd Technical Literature and this Appraisal by competent and experienced tradespersons conversant with flashing tapes. Where the work involves Restricted Building Work (RBW) this must be completed by, or under the supervision of, a Licensed Building Practitioner (LBP) with the relevant License 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 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 Watertight Frost 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.



- 13.4 A length of Watertight Frost 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. Cut another length of Watertight Frost Flashing Tape to the exact length of the sill, and overlay onto the already installed tape, to ensure nail seal requirements are met.
- 13.5 A 400 mm length of Watertight Frost 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 Watertight Frost 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 Watertight Frost Flashing Tape system.
- 13.7 If the Watertight Frost Flashing Tape is exposed to the weather or UV light for more than 90 days over flexible wall underlay or 180 days over rigid wall underlays, then it must be replaced with new material.

Installation Temperature

- 13.8 Watertight Frost 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 Watertight Frost Flashing Tape installations.

Basis of Appraisal

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

Tests

- 14.1 Testing of Watertight Frost Flashing Tape has been completed by BRANZ to the requirements of ICC Evaluation Service Acceptance Criteria for Flashing Materials AC148: 2001. The adhesion of Watertight Frost Flashing Tape to various building paper complying with the requirements of NZBC Acceptable Solution E2/AS1, 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 Watertight Frost 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 Watertight Frost 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 Techno Wrapping Systems 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 Techno Wrapping Systems Ltd.



BRANZ Appraised
Appraisal No. 1131 [2021]

BRANZ Appraisal
Appraisal No. 1131 [2021]
02 September 2021

WATERTIGHT FROST
FLASHING TAPE



BRANZ

Sources of Information

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



BRANZ Appraised
Appraisal No. 1131 [2021]

BRANZ Appraisal
Appraisal No. 1131 [2021]
02 September 2021

WATERTIGHT FROST
FLASHING TAPE



In the opinion of BRANZ, **Watertight Frost 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 **Techno Wrapping Systems 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. **Techno Wrapping Systems 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 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 **Techno Wrapping Systems 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 **Techno Wrapping Systems Ltd** or any third party.

For BRANZ

Chelydra Percy

Chief Executive

Date of Issue:

02 September 2021