



BRANZ Appraised

Appraisal No. 631 [2023]

**FRAMEFLASH™/
WATERTIGHT®
FLASHING TAPE**

Appraisal No. 631 [2023]

This Appraisal replaces BRANZ
Appraisal No. 631 [2017]



BRANZ Appraisals

Technical Assessments of
products for building and
construction.



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Product

- 1.1 FrameFlash™/Watertight® is a flexible flashing tape for use around framed joinery openings as a secondary weather-resistant barrier.
- 1.2 FrameFlash™/Watertight® 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. FrameFlash™/Watertight® is also used at joinery heads to seal flashing upstands to the wall underlay.

Scope

- 2.1 FrameFlash™/Watertight® has been appraised as a flexible flashing tape for use around window and door joinery openings for buildings within the following scope:
 - the scope limitations of NZBC Acceptable Solution E2/AS1, Paragraph 1.1; and,
 - with a risk score of 0-20, calculated in accordance with NZBC Acceptable Solution E2/AS1, Table 2; and,
 - with wall cladding systems complying with NZBC Acceptable Solution E2/AS1 or a valid BRANZ Appraisal that specifies a flexible flashing system; and,
 - with wall underlays compatible with the flashing tape; and,
 - situated in NZS 3604 Wind Zones up to, and including, Extra High.
- 2.2 FrameFlash™/Watertight® has also been appraised as a flexible flashing tape for use around window and door joinery openings for steel-framed buildings within the following scope:
 - the scope limitations of NASH Building Envelope Solutions, Paragraph 1.1; and,
 - constructed with steel framing complying with NASH Standard Part Two,
 - with a risk score of 0-20, calculated in accordance with NASH Building Envelope Solutions, Table 2; and,
 - with wall cladding systems covered by a valid BRANZ Appraisal that specifies a flexible flashing system; and,
 - with wall underlays compatible with the flexible flashing tape and steel frame; and,
 - situated in NASH Standard Part Two Wind Zones up to, and including, Extra High.

Building Regulations

New Zealand Building Code (NZBC)

3.1 In the opinion of BRANZ, FrameFlash™/Watertight®, 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. FrameFlash™/Watertight® meets these requirements. See Paragraphs 8.1 and 8.2.

Clause E2 EXTERNAL MOISTURE: Performance E2.3.2. FrameFlash™/Watertight® contributes to meeting this requirement. See Paragraphs 7.1-7.4 and 11.1.

Clause F2 HAZARDOUS BUILDING MATERIALS: Performance F2.3.1. FrameFlash™/Watertight® meets this requirement.

Technical Specification

4.1 FrameFlash™/Watertight® is a multi-layered, woven, aluminium-polyolefin faced, bituminous modified, self-adhesive tape with a polyethylene release backing paper. FrameFlash™ is supplied in rolls of 75, 150 and 200 mm wide. Watertight® is supplied in rolls of 75, 150 and 200 mm wide. The products are printed with the FrameFlash™ or Watertight® logo repeated along the length of the roll. The rolls are packaged in clear polythene film.

Handling and Storage

5.1 Handling and storage of all materials supplied by Techno Wrapping Systems Limited, whether on-site or off-site, is under the control of the installer. FrameFlash™/Watertight® 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:

- FrameFlash™ Premium Flexible Flashing Tape.
- Watertight® Premium Flexible Flashing Tape.

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 FrameFlash™/Watertight® meets the requirements of AC148 [2001] which is an alternative version to the AC148 referenced in NZBC Acceptable Solution E2/AS1, Paragraph 9.1.5 b). Refer to the Technical Literature or Techno Wrapping Systems Limited for more information on wall underlays that are compatible with the system. The installation method for FrameFlash™/Watertight® 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 FrameFlash™/Watertight® 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.

- 7.4 FrameFlash™/Watertight® 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. FrameFlash™/Watertight® flashing tape is designed to be used in conjunction with air seals and joinery flashing systems, not as a substitute.
- 7.5 When FrameFlash™/Watertight® is used in conjunction with light organic solvent preservative [LOSP] 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 FrameFlash™/Watertight® 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 90 days, and provided the exterior cladding is maintained in accordance with the cladding manufacturer's instructions and the cladding remains weather resistant, FrameFlash™/Watertight® is expected to have a serviceable life equal to that of the cladding.

Maintenance

- 9.1 No maintenance is required for FrameFlash™/Watertight®. 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 the FrameFlash™/Watertight® 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), FrameFlash™/Watertight® may be used.

Installation Information

Installation Skill Level Requirement

- 12.1 All design and building work must be carried out in accordance with the FrameFlash™/Watertight® Technical Literature and this Appraisal by competent and experienced tradespersons conversant with FrameFlash™/Watertight®. 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 wall 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 Before FrameFlash™/Watertight® 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.

- 13.3 A 150 mm x 150 mm square of FrameFlash™/Watertight® tape must be cut into two equal triangular pieces [CornerGuards]. The CornerGuards must be installed into the bottom corners of the frame opening with a 40 mm apex fitted neatly into the sill/jamb junction of the frame. The remaining CornerGuard material is to be folded flat against the outside face of the wall underlay.
- 13.4 A length of FrameFlash™/Watertight® 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 wall underlay.
- 13.5 A 400 mm length of FrameFlash™/Watertight® 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 150 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 Where cladding is direct fixed to the wall, the crease lines in the CornerGuards may interfere with the installation. Crease lines may be removed by lightly tapping out with a hammer, being careful not to puncture the foil.
- 13.7 FrameFlash™/Watertight® must not be stretched. When joining two sections of tape, the overlap must be 100 mm minimum.
- 13.8 If FrameFlash™/Watertight® is exposed to the weather or UV light for more than 90 days, it must be replaced with new material.

Installation Temperature

- 13.9 FrameFlash™/Watertight® must not be installed at temperatures of less than 5°C.

Inspections

- 13.10 The Technical Literature must be referred to during the inspection of FrameFlash™/Watertight® installations.

Basis of Appraisal

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

Tests

- 14.1 Testing of FrameFlash™/Watertight® has been completed by BRANZ to the requirements of ICC Evaluation Service Acceptance Criteria for Flashing Materials AC148. The adhesion of FrameFlash™/Watertight® to black bituminous kraft building paper complying with the requirements of NZBC Acceptable Solution E2/AS1, Table 23; selected other synthetic flexible wall underlays and rigid underlays has been tested and found to be satisfactory.

Other Investigations

- 15.1 An assessment was made of the durability of FrameFlash™/Watertight® 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 FrameFlash™/Watertight® has not been examined by BRANZ, but details regarding the quality and composition of the materials used were obtained by BRANZ and found to be satisfactory. BRANZ undertakes an ongoing review of product quality on an inwards goods basis.
- 16.2 The quality of supply to the market is the responsibility of Techno Wrapping Systems Limited.
- 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 Limited.



Sources of Information

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



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BRANZ Appraisal
06 April 2023

FRAMEFLASH™/WATERTIGHT®
FLASHING TAPE



In the opinion of BRANZ, **FrameFlash™/Watertight® 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 Limited**, 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 Limited**:
 - 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 Limited**.
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 Limited** or any third party.

For BRANZ

Chelydra Percy

Chief Executive

Date of Issue:

06 April 2023