

TESCON EXTOSEAL

## Appraisal No. 815 (2024)

**SILL TAPE** 

This Appraisal replaces BRANZ Appraisal No. 815 (2019)



#### **BRANZ Appraisals**

Technical Assessments of products for building and construction.



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#### **BRANZ**

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- 1.1 TESCON EXTOSEAL Sill Tape is a flexible flashing tape 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 building underlay and exposed frame to cover both the face and edge of the opening framing.

#### Scope

- 2.1 TESCON EXTOSEAL Sill Tape has been appraised as a flexible flashing system 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 flexible wall underlays compatible with the flashing tape; and,
  - situated in NZS 3604 Wind Zones up to, and including, Extra High.
- 2.2 TESCON EXTOSEAL Sill Tape has also been appraised as a flexible flashing system 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,
  - with a risk score of 0-20, calculated in accordance with NASH Building Envelope Solutions; and,
  - with wall cladding systems covered by a valid BRANZ Appraisal that specifies a flexible flashing system; and,
  - with flexible wall underlays compatible with the flashing tape and steel frame; and,
  - situated in NASH Standard Part 2 Wind Zones up to, and including, Extra High.





## **Building Regulations**

#### New Zealand Building Code (NZBC)

3.1 In the opinion of BRANZ, TESCON EXTOSEAL Sill 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. TESCON EXTOSEAL SIII Tape meets these requirements. See Paragraphs 8.1 and 8.2.

**Clause E2 EXTERNAL MOISTURE:** Performance E2.3.2. TESCON EXTOSEAL Sill Tape contributes to meeting this requirement. See Paragraphs 7.1-7.4 and 11.1.

**Clause F2 HAZARDOUS BUILDING MATERIALS:** Performance F2.3.1. TESCON EXTOSEAL Sill Tape meets this requirement.

### **Technical Specification**

- 4.1 System components and accessories supplied by Pro Clima [NZ] Ltd are:
  - TESCON EXTOSEAL Sill Tape is a pressure-sensitive, self-adhering, one piece stretchable butyl
    rubber based sill tape with a release backing paper. The core of the tape is coloured grey with a
    black polyethylene upper layer which bears the product and manufacturer's name. The tape is
    supplied in rolls of 150 and 200 mm width and a length of 20 m. The rolls are wrapped in clear
    plastic.
  - Pro Clima (NZ) Ltd PRESSFIX application tool to aid installation of the tape.

### Handling and Storage

5.1 Handling and storage of all materials supplied by Pro Clima (NZ) Ltd, whether on-site or off-site, is under the control of the installer. TESCON EXTOSEAL SIII Tape 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:
  - Pro Clima TESCON EXTOSEAL® Sill Tape Technical Data Sheet, dated 24 March 2020.
  - Pro Clima TESCON EXTOSEAL® Application Guide, version M14155, dated 3 March 2020.
- 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 TESCON EXTOSEAL Sill Tape has been assessed against BRANZ criteria, which is an alternative solution to the test method 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 TESCON EXTOSEAL Sill Tape follows the installation guidelines shown within NZBC Acceptable Solution E2/AS1, Figures 72A and 72B and NASH Building Envelope Solutions, Figures 72A and 75B.
- 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 TESCON EXTOSEAL Sill 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.



- 7.4 TESCON EXTOSEAL Sill 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. TESCON EXTOSEAL Sill Tape is designed to be used in conjunction with air seals and joinery flashing systems, not as a substitute.
- 7.5 When the TESCON EXTOSEAL Sill 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 the TESCON EXTOSEAL SIII 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 180 days, and provided the exterior cladding is maintained in accordance with the cladding manufacturer's instructions and the cladding remains weather-resistant, TESCON EXTOSEAL Sill Tape is expected to have a serviceable life equal to that of the cladding. The maximum exposure period of the tape may however be limited by the requirements of the substrate manufacturer.

#### Maintenance

9.1 No maintenance is required for TESCON EXTOSEAL SIll 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 the TESCON EXTOSEAL Sill 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 tape 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), TESCON EXTOSEAL Sill 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 TESCON EXTORA Sill Tape Technical Literature and this Appraisal by competent and experienced tradespeople conversant with window 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 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 Before the TESCON EXTOSEAL Sill 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.



- 13.3 A length of TESCON EXTOSEAL SIll Tape must then be cut to the length of the sill plus 200 mm. The tape is installed flush with the interior face of the opening and is applied along the entire length of the sill and minimum 100 mm up each jamb. The overhanging tape is folded onto the face of the wall underlay.
- 13.4 A 200 mm length of TESCON EXTOSEAL Sill Tape must be installed minimum 100 mm down the jamb and minimum 100 mm along the lintel at each of the top corners of the window or door joinery opening.
- 13.5 At the corners, the TESCON EXTOSEAL Sill Tape is fanned out over the face of the wall and pressed firmly onto the wall underlay, taking care not to overstretch the tape.
- 13.6 Ensure that adequate adhesion of the tape to the wall underlay is achieved by using the Pro Clima (NZ) Ltd PRESSFIX application tool and that the tape is installed tight into the sill/jamb junction.
- 13.7 TESCON EXTOSEAL SIII Tape must not be over stretched. To avoid wastage, the tape can be lapped 100 mm minimum onto itself without reducing the performance of the TESCON EXTOSEAL SIII Tape.
- 13.8 If the TESCON EXTOSEAL Sill Tape is exposed to the weather or UV light for more than 180 days, then it must be replaced with new material.

#### **Installation Temperature**

13.9 The TESCON EXTOSEAL Sill Tape must not be installed where the ambient air and substrate temperatures are less than -5°C. Care is required to ensure adhesion is still able to be achieved when the temperature is less than 0°C.

[Note: Pro Clima (NZ) Ltd claims an installation temperature from -20°C. This claim has not been assessed by BRANZ, and is therefore outside the scope of this Appraisal.]

#### Inspections

13.10 The Technical Literature must be referred to during the inspection of TESCON EXTOSEAL Sill Tape installations.

### **Basis of Appraisal**

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

#### **Tests**

14.1 The TESCON EXTOSEAL SIII Tape has been tested to BRANZ criteria to assess the tensile strength of control and UV aged material, nail sealability, water resistance of control and UV accelerated aged material and pliability. BRANZ has determined that the tape is fit for purpose for the intended use. The adhesion of TESCON EXTOSEAL SIII Tape to black bituminous Kraft paper complying with the requirements of NZBC Acceptable Solution E2/AS1, Table 23 and other selected synthetic wall underlays has also been tested and found to be satisfactory.

#### Other Investigations

- 15.1 An assessment was made of the durability of the TESCON EXTOSEAL SIII 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 the TESCON EXTOSEAL SIII Tape has been examined on behalf of BRANZ, including methods adopted for quality control. 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 Pro Clima (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 Pro Clima [NZ] Ltd.

#### 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.





In the opinion of BRANZ, TESCON EXTOSEAL SIll 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 Pro Clima (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. Pro Clima (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 Pro Clima (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 Pro Clima (NZ) Ltd or any third party.

For BRANZ

Claire Falck Chief Executive

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Date of Issue:

01 November 2024