



BRANZ Appraised

Appraisal No. 846 [2013]

SUPER-STICK FLEXIBLE FLASHING TAPE

Appraisal No. 846 [2013]

Amended 29 January 2016



BRANZ Appraisals

Technical Assessments of products for building and construction.



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Product

- 1.1 SUPER-STICK is a flexible flashing tape used around framed joinery openings as a secondary weather resistant barrier.
- 1.2 SUPER-STICK is installed into and around the framed joinery opening over the building wrap and exposed frame to cover both the face and edge of the opening framing. SUPER-STICK is also used at joinery heads to seal flashing upstands to the building wrap.

Scope

- 2.1 SUPER-STICK 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 tape system; and,
 - with wall underlays compatible with the flexible flashing tape; and,
 - situated in NZS 3604 Wind Zones up to, and including, Extra High.
- 2.2 SUPER-STICK 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 NZBC Acceptable Solution E2/AS1, with regards to building height and floor plan area; and,
 - constructed with steel framing complying with the NZBC; and,
 - with a risk score of 0-20, calculated in accordance with NZBC Acceptable Solution E2/AS1, 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 flashing tape and steel frame; and,
 - situated in NZS 3604 Wind Zones up to, and including, Extra High.

Note: Marshall Innovations Ltd offer SUPER-STICK as a jointing and flashing tape for use with rigid air barrier systems that do not require a flexible wall underlay, but this aspect is outside the scope of this Appraisal. Contact the rigid air barrier system proprietor for system details including recommended jointing and flashing tapes.

Building Regulations

New Zealand Building Code (NZBC)

3.1 In the opinion of BRANZ, SUPER-STICK, 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. SUPER-STICK meets these requirements. See Paragraphs 8.1 and 8.2.

Clause E2 EXTERNAL MOISTURE: Performance E2.3.2. SUPER-STICK contributes to meeting this requirement. See Paragraphs 7.1 - 7.4 and 11.1.

Clause F2 HAZARDOUS BUILDING MATERIALS: Performance F2.3.1. SUPER-STICK meets this requirement and will not present a health hazard to people.

3.2 This is an Appraisal of an **Alternative Solution** in terms of New Zealand Building Code compliance. See Paragraph 7.1.

Technical Specification

4.1 SUPER-STICK is a multi-layered silver polyester faced, copolymer, self-adhesive tape. The tape is supplied in rolls of 75 mm X 22.86 m, 150 mm X 22.86 m and 200 mm X 22.86 m.

Handling and Storage

5.1 Handling and storage of all materials supplied by Marshall Innovations Ltd, whether on or off site, is under the control of the installer. 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 SUPER-STICK. 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 SUPER-STICK meets the requirements of AC148: 2001 which is an alternative solution to the version of AC148 referenced by NZBC Acceptable Solution E2/AS1, Paragraph 9.1.5 (b). The installation method for SUPER-STICK is an alternative solution to the installation method shown within NZBC Acceptable Solution E2/AS1, Figure 72A and 72B.

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

7.3 SUPER-STICK 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.

7.4 SUPER-STICK 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 SUPER-STICK 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. SUPER-STICK flashing tape is designed to be used in conjunction with air seals and joinery flashing systems, not as a substitute.

- 7.6 When SUPER-STICK 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 SUPER-STICK both during normal use and maintenance of the building.

Serviceable Life

- 8.2 Provided it is not exposed to the weather or ultra-violet 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, SUPER-STICK is expected to have a serviceable life equal to that of the cladding. The maximum exposure period may however be limited by the requirements of the substrate supplier.

Maintenance

- 9.1 No maintenance is required for SUPER-STICK. 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 SUPER-STICK from heat sources such as fire places, heating appliances, flues and chimneys. Part 7 of NZBC Acceptable Solutions C/AS1 – C/AS6 and NZBC Verification Method C/VM1 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], SUPER-STICK may be used.

Installation Information

Installation Skill Level Requirements

- 12.1 Installation of SUPER-STICK must be completed by tradespersons with an understanding of flexible flashing systems, in accordance with instructions given within SUPER-STICK Technical Literature and this Appraisal.

General

- 13.1 The selected building wrap must be installed in accordance with the manufacturer's instructions, and must completely cover the joinery opening. The wrap 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 SUPER-STICK 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 75 mm wide x 150 mm long sealing tape 'butterfly' must be installed at 45° across the corner of the jamb/sill junction overlapping the corner by 3 mm to create a seal at the corner junction. A length of SUPER-STICK is then cut to the length of the sill plus 300 mm. The tape is installed flush with the interior face of the opening and is applied along the entire length of the sill and 150 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 wrap and "butterfly" installed across the corner. Cut another length of SUPER-STICK the exact length of the sill and overlay onto the already installed Tape to ensure nail sealability requirements are met.

- 13.4 A 300 mm length of SUPER-STICK must be installed 150 mm down the jamb and 150 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.
- 13.5 SUPER-STICK must not be stretched. When joining two sections of tape, the overlap must be 100 mm minimum.
- 13.6 If SUPER-STICK is exposed to the weather or UV light for more than 90 days, it must be replaced with new material.

Installation Temperature

- 13.7 SUPER-STICK must not be installed where temperatures are less than -5°C [Note: Marshall Innovations Ltd approve the installation of SUPER-STICK down to -20°C. This has not been addressed by this Appraisal and is outside its scope.]

Inspections

- 13.8 The Technical Literature must be referred to during the inspection of SUPER-STICK installations.

Basis of Appraisal

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

Tests

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

Other Investigations

- 15.1 An assessment was made of the durability of SUPER-STICK 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 SUPER-STICK 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 Marshall Innovations Ltd.
- 16.3 Designers are responsible for the building design, and building contractors are responsible for the quality of installation of framing systems and building wraps 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 Marshall Innovations Ltd.

Sources of Information

- ICC Evaluation Service, Inc, AC148 Acceptable Criteria for Flexible Flashing Materials, July 2001.
- NZS 3604: 2011 Timber-framed buildings.
- Compliance Document for New Zealand Building Code External Moisture Clause E2, Department of Building and Housing, Third Edition July 2005 [Amendment 6, 14 February 2014].
- Ministry of Business, Innovation and Employment Record of Amendments for Compliance Documents and Handbooks.
- The Building Regulations 1992.



Amendments

Amendment No. 1, dated 13 March 2014.

This Appraisal has been amended to increase maximum exposure days and to reduce the minimum application temperature.

Amendment No. 2, dated 29 January 2016.

This Appraisal has been amended to update the roll sizes of SUPER-STICK.



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FLEXIBLE FLASHING TAPE



In the opinion of BRANZ, **SUPER-STICK** 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 **Marshall Innovations 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. **Marshall Innovations 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 **Marshall Innovations 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 **Marshall Innovations Limited** or any third party.

For BRANZ

Chelydra Percy

Chief Executive

Date of Issue:

23 December 2013