



BRANZ Appraised
Appraisal No. 1015 [2019]

**FAST WRAP
FLAMESPEC HW
ROOF SARKING**



FlameSpec HW

SYNTHETIC HEAVY WEIGHT ROOFING UNDERLAY

Appraisal No. 1015 [2019]

BRANZ Appraisals

Technical Assessments of
products for building and
construction.



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Product

- 1.1 Fast Wrap FlameSpec HW Roof Sarking is a synthetic building sarking for use under roof claddings. The product consists of a micro-porous water-resistant film laminated between two layers of non-woven spun-bonded polyolefin.

Scope

- 2.1 Fast Wrap FlameSpec HW Roof Sarking has been appraised for use as a self-supporting roof sarking on buildings within the following scope:
- Class 1 and Class 10 buildings; and,
 - Class 2 to Class 9 buildings subject to specific weathertightness design; and,
 - constructed with timber or steel framing in accordance with the BCA; and,
 - with masonry, metal tile and profiled metal roof cladding; and,
 - situated in non-cyclonic wind zones up to, and including N3.
- 2.2 Building designers are responsible for the building design and for the incorporation of Fast Wrap FlameSpec HW into their design in accordance with the declared properties and the instructions of Paul Industries.

Building Regulations

National Construction Code Series [NCC] Building Code of Australia [BCA]

- 3.1 In the opinion of BRANZ, Fast Wrap FlameSpec HW Roof Sarking, if used, designed, installed and maintained in accordance with the statements and conditions of this Appraisal, will contribute to meeting the following provisions of the BCA:

BCA Volume 1 - Class 2 to Class 9 Buildings

Part F1 - DAMP AND WEATHERPROOFING: Performance Requirement FP1.4. Fast Wrap FlameSpec HW Roof Sarking will contribute to meeting this requirement. See Paragraphs 13.1 and 13.2.

BCA Volume 2 - Class 1 and Class 10 Buildings

Part 2.2 DAMP AND WEATHERPROOFING: Performance Requirement P2.2.2. Fast Wrap FlameSpec HW Roof Sarking will contribute to meeting this requirement. See Paragraphs 13.1 and 13.2.

Technical Specification

- 4.1 Fast Wrap FlameSpec HW Roof Sarking is a synthetic building sarking for use under roof claddings. The product consists of a micro-porous water-resistant film laminated between two layers of non-woven spun-bonded polyolefin. Fast Wrap FlameSpec HW is coloured grey on the top face and white on the bottom face.
- 4.2 The product is supplied in rolls 1.350 m wide x 55.56 m long. The product is printed with laying lines repeated along the length of the roll. The rolls are wrapped in clear polythene film with a label insert to identify the product.

Accessories

- 4.3 Accessories used with Fast Wrap FlameSpec HW Roof Sarking which are supplied by the installer are:
- Fixings - staples, clouts, screws or proprietary sarking fixings, or other temporary fixings to attach the roof sarking to the framing.
 - Roof sarking support - 50 mm or 75 mm galvanised mesh or galvanised wire.

Handling and Storage

- 5.1 Handling and storage of the product, whether on or off site, is under the control of the installer. The rolls must be protected from damage and weather. They must be stored on end, under cover, in clean, dry conditions and must not be crushed.

Technical Literature

- 6.1 Refer to the Appraisals listing on the BRANZ website for details of the current Technical Literature for Fast Wrap FlameSpec HW Roof Sarking. 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

- 7.1 Fast Wrap Flamespec HW Roof Sarking is suitable for use at roof pitches 3° and above. When used at pitches less than 10°, Fast Wrap Flamespec HW Roof Sarking can be installed horizontally or vertically when fully supported by a corrosion resistant roof sarking support. At pitches 10° and greater, Fast Wrap Flamespec HW Roof Sarking can be installed horizontally or vertically, spanning no greater than 1200 mm between supports.
- 7.2 Fast Wrap FlameSpec HW Roof Sarking provides a degree of temporary weather protection during the early construction. However, the product will not make the roof weathertight and some wetting of the underlaying structure is always possible before the roof cladding is installed. Hence, the entire building must be closed-in and made weatherproof before moisture sensitive materials such as ceiling linings and insulation materials are installed.
- 7.3 Fast Wrap FlameSpec HW Roof Sarking is intended for use as an alternative to conventional kraft paper roof underlays, which are fixed over timber or steel framed roofs to limit the entry of wind into the roof cavity, and to assist in the moisture management of the roof cladding system.
- 7.4 Fast Wrap FlameSpec HW Roof Sarking must not be exposed to the weather or ultra violet light for a total of more than 7 days before being covered by the roof cladding.
- 7.5 Fast Wrap FlameSpec HW Roof Sarking is deemed to be a satisfactory sarking material for the proofing of roofs in accordance with BCA Volume 1, Paragraph F1.6 and Volume 2, Section P2.2.2 for roofs.

Table 1: Fast Wrap FlameSpec HW Roof Sarking Material Properties

| AS/NZS 4200.1 Properties MD = Machine Direction CD = Cross Direction | Property Performance Requirement | Actual Property Performance | AS/NZS 4200.1 Classification |
|--|----------------------------------|-----------------------------|------------------------------|
| Shrinkage | ≤ 0.5% | Pass | Not Applicable |
| Absorbency | ≥ 100 g/m ² | Pass | High |
| Vapour Barrier | ≤ 7 MN s/g | Pass | Low |
| Water Barrier | ≥ 100 mm | Pass | High |
| Emittance | | | Non-reflective |
| Tensile Strength MD | | 3.8 kN/m | Unclassified |
| Tensile Strength CD | | 2.0 kN/m | Unclassified |
| Edge tear resistance MD | ≥ 90 N | 192 N | Extra Heavy |
| Edge tear resistance CD | ≥ 90 N | 106 N | Extra Heavy |
| Flammability | ≤ 5 | Pass | Low |

Structure

- 8.1 Fast Wrap FlameSpec HW Roof Sarking is suitable for use on buildings situated in non-cyclonic wind zones up to and including N3.

Durability

Serviceable Life

- 9.1 Provided it is not exposed to the weather or ultra-violet light for a total of more than 7 days, and provided the roof cladding is maintained in accordance with the cladding manufacturer's instructions and the cladding remains weather resistant, Fast Wrap FlameSpec HW Roof Sarking is expected to have a serviceable life equal to that of the cladding.

Flammability

- 10.1 Fast Wrap FlameSpec HW Roof Sarking has an AS 1530 Part 2 Flammability Index of less than 5 and therefore has a Flammability Index classification of Low in accordance with AS/NZS 4200.1.

Heating Appliances, Fireplaces, Chimneys and Flues

- 11.1 Fast Wrap FlameSpec HW Roof Sarking must be separated from fireplaces, heating appliances, flues and chimneys in accordance with the requirements of the BCA for the protection of combustible materials.

Fire Resistance

BCA Bush Fire Zones

- 12.1 Where regulations require special attention in bushfire prone areas, it may be necessary for Fast Wrap FlameSpec HW Roof Sarking to comply with AS 3959. The building designer is responsible for determining the compliance requirements.

Damp and Weatherproofing

- 13.1 Roof claddings installed over Fast Wrap FlameSpec HW Roof Sarking must meet the performance requirements of the BCA, e.g. Deemed to Satisfy roof claddings covered by the BCA.
- 13.2 Fast Wrap FlameSpec HW Roof Sarking, when installed in accordance with the Technical Literature and this Appraisal will assist in the total cladding system's compliance with the Damp and Weatherproofing performance clauses of the BCA.

Installation Information

Installation Skill Level Requirements

- 14.1 Installation must always be carried out in accordance with the Fast Wrap FlameSpec HW Roof Sarking Technical Literature and this Appraisal, by competent tradespersons with an understanding of roof sarking installation.

Sarking Installation

- 15.1 Fast Wrap FlameSpec HW Roof Sarking must be fixed to all framing members at maximum 300 mm centres with large-head clouts 20 mm long, 6-8 mm staples, self-drilling screws or proprietary sarking fixings. The sarking must be pulled taut over the framing before fixing.
- 15.2 Fast Wrap FlameSpec HW Roof Sarking may be installed horizontally or vertically at roof pitches 3° and above [refer Paragraph 7.1 for further guidance]. It must extend from the ridge and overhang the fascia board by 20-25 mm. Vertical laps must be no less than 150 mm wide. Horizontal laps must also be no less than 150 mm, with the direction of the lap ensuring that water is shed to the outer face of the underlay. End laps must be made over framing and be no less than 150 mm wide.
- 15.3 When fixing the product in windy conditions, care must be taken due to the large sail area created by wide roll widths.
- 15.4 Any damaged areas of Fast Wrap FlameSpec HW Roof Sarking, such as tears, holes or gaps around service penetrations, must be repaired. Damaged areas can be repaired by covering with new material lapping the damaged area by at least 150 mm and taping, or by taping small tears.

Inspections

- 16.1 The Technical Literature must be referred to during the inspection of Fast Wrap FlameSpec HW Roof Sarking installations.

Basis of Appraisal

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

Tests

- 17.1 The following tests have been carried out on Fast Wrap FlameSpec HW Roof Sarking in accordance with AS/NZS 4200.1: Resistance to dry delamination, resistance to wet delamination, shrinkage, folding endurance, tensile strength, edge-tear resistance, resistance to water vapour transmission, resistance to water penetration, and surface water absorbency. A range of these tests were completed before and after Fast Wrap FlameSpec HW Roof Sarking was exposed to ultra-violet light.
- 17.2 The Flammability Index of Fast Wrap FlameSpec HW Roof Sarking has been evaluated in accordance with AS/NZS 1530.2.

Other Investigations

- 18.1 A durability opinion has been given by BRANZ technical experts.
- 18.2 An evaluation of the expected performance of Fast Wrap FlameSpec HW Roof Sarking in direct contact with metal roof cladding has been completed by BRANZ.
- 18.3 The practicability of installation of Fast Wrap FlameSpec HW Roof Sarking has been assessed by BRANZ and found to be satisfactory.

- 18.4 The Technical Literature, including installation instructions, has been examined by BRANZ and found to be satisfactory.

Quality

- 19.1 The manufacture of Fast Wrap FlameSpec HW Roof Sarking has not been examined by BRANZ, but details of the methods adopted for quality control and the quality of the materials used, have been obtained and found to be satisfactory.
- 19.2 The quality of supply to the market is the responsibility of Paul Industries.
- 19.3 Building designers are responsible for the design of the building, and for the incorporation of the roof sarking into their design in accordance with the instructions of Paul Industries.
- 19.4 Quality of installation is the responsibility of the installer in accordance with the instructions of Paul Industries.

Sources of Information

- AS 1530.2 - 1993 Test for flammability of materials.
- AS 3959 - 2009 Construction of buildings in bushfire-prone areas.
- AS/NZS 4200.1: 1994 Pliable building membranes and underlays.
- National Construction Code Series, Building Code of Australia 2019 - Australian Building Codes Board.




In the opinion of BRANZ, **Fast Wrap FlameSpec HW Roof Sarking** 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 **Judea Holdings Ltd T/A Paul Industries**, 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. **Judea Holdings Ltd T/A Paul Industries:**
 - 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 **Judea Holdings Ltd T/A Paul Industries**.
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 **Judea Holdings Ltd T/A Paul Industries** or any third party.

For BRANZ



Chelydra Percy

Chief Executive

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12 November 2019