



## FlameSpec HW Roof Underlay

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### SUMMARY OF FEATURES

- A synthetic building underlay for use under roof claddings.
- BRANZ appraised for use in all areas without restriction.
- Consists of a micro-porous water resistant film, laminated to two layers of non woven spun-bonded polyolefin.
- The modern alternative to conventional kraft paper underlays.
- Used to reduce drafts and assist in moisture management.
- Stronger and more resistant to shrinkage than kraft based papers.
- Water resistant and will not rot.
- Grey colouring reduces glare for significantly less eye-strain during application.
- Printed with laying lines for ease of installation.
- Suitable for use in all Building Wind Zones of NZS 3604 up to, and including 'Extra High'.
- May be installed in wet conditions without affecting its surface.
- Breathable water resistant film reduces the risk of condensation when compared with conventional kraft papers.
- AS 1530.2 Flammability index of <5.
- Suitable for timber framed and steel framed structures.

### TECHNICAL INFORMATION

#### Product Description

Fastwrap FlameSpec HW Roof Underlay is a synthetic self supporting building underlay for use under roof claddings. The product consists of a micro-porous water resistant film laminated to two layers of non woven spun-bonded polyolefin.

#### Applications

Fastwrap FlameSpec HW Roof Underlay is for use as a self supporting roof underlay on buildings within the following:

- the limitations of NZBC Acceptable Solution E2/AS1, Paragraph 1.1 with regards to building height and floor plan area
- with masonry tile roof cladding
- with metal tile and profiled metal roof cladding
- situated in NZS 3604 Building Wind Zones up to, and including 'Extra High'.



### Appraisals

BRANZ Appraisal No. 714 (2017).

### Product Information

Timber and steel roof framing must be provided in accordance with the requirements of the NZBC and the roof cladding manufacturer.

Fastwrap FlameSpec HW Roof Underlay is intended for use as an alternative to conventional kraft paper roof underlays, which are fixed over timber or steel framed roofs in order to limit the entry of wind into the roof cavity, and to assist in the moisture management of the roof cladding system.

The material also provides a degree of temporary weather protection during early construction. However, the product will not make the roof weather tight and some wetting of the underlying 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.

Fastwrap FlameSpec HW Roof Underlay must not be exposed to the weather or ultra violet light for a total of more than seven days before being covered by the roof cladding.

Fastwrap FlameSpec HW Roof Underlay is suitable for use under roof claddings on buildings as a roof underlay as called up in NZBC Acceptable Solution E2/AS1, Table 23.

Fastwrap FlameSpec HW Roof Underlay is suitable for use at roof pitches 3° and above. When used at pitches less than 10°, Fastwrap FlameSpec HW Roof Underlay can be installed horizontally or vertically when supported by a corrosion resistant roof underlay support. At pitches 10° and greater, Fastwrap FlameSpec HW Roof Underlay can be installed vertically or horizontally, spanning no greater than 1200 mm between supports.

Fastwrap FlameSpec HW Roof Underlay is suitable for use in all Building Wind Zones of NZS 3604 up to, and including, 'Extra High'.

Fastwrap FlameSpec HW Roof Underlay meets code compliance with NZBC Clause B2.3.1 (a), not less than 50 years for roof underlays used where the roof cladding durability requirement or expected serviceable life is not less than 50 years, e.g. behind masonry roof tile cladding, and code compliance with NZBC Clause B2.3.1 (b), 15 years for roof underlays used where the roof cladding durability requirement is 15 years.

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

Fastwrap FlameSpec HW Roof Underlay has an AS 1530.2 Flammability Index of  $\leq 5$  and meets the requirements of NZBC Acceptable Solution C/AS1 Part 6, Table 6.2 for surface finish requirements for suspended flexible fabrics, and therefore may be used with no restrictions in all buildings. The Flammability Index of Fastwrap FlameSpec HW Roof Underlay has been evaluated in accordance with AS 1530.2.



## FlameSpec HW Roof Underlay

Fastwrap FlameSpec HW Roof Underlay must be separated from fireplaces, heating appliances, flues and chimneys in accordance with the requirements of NZBC Acceptable Solution C/ AS1 Part 9 for the protection of combustible materials.

Fastwrap FlameSpec HW Roof Underlay must only be used under roof claddings that meet the requirements of the NZBC, such as those covered by NZBC Acceptable Solution E2/AS1, or roof claddings covered by a valid BRANZ Appraisal.

Fastwrap FlameSpec HW Roof Underlay, when installed in accordance with the technical literature contained within this brochure and the BRANZ Appraisal, will assist in the total cladding system's compliance with NZBC Clause E2.

Fastwrap FlameSpec HW Roof Underlay, if used, designed, installed and maintained in accordance with the statements and conditions within this brochure, will meet, or contribute to meeting the following provisions of the NZBC:

- Clause B2 Durability: Performance B2.3.1 (a), not less than 50 years, B2.3.1 (b), 15 years and B2.3.2. Fastwrap FlameSpec HW Roof Underlay meets these requirements.
- Clause E2 External Moisture: Performance E2.3.2. When used as part of the roof cladding system, Fastwrap FlameSpec HW Roof Underlay will contribute to meeting this requirement.
- Clause F2 Hazardous Building Materials: Performance F2.3.1. Fastwrap FlameSpec HW Roof Underlay meets this requirement and will not present a health hazard to people.

The following tests have been carried out on Fastwrap FlameSpec HW Roof Underlay in accordance with NZBC Acceptable Solution E2/AS1, Table 23: tensile strength, edge-tear resistance and resistance to water vapour transmission in accordance with AS/NZS 4200.1, shrinkage in accordance with AS/NZS 4201.3, resistance to water penetration in accordance with AS/NZS 4201.4, surface water absorbency in accordance with AS/NZS 4201.6 and pH of extract in accordance with AS/NZS 1301.421s. A range of these tests were completed before and after Fastwrap FlameSpec HW Roof Underlay was exposed to ultra-violet light.

### NZBC E2/AS1 TABLE 23 REQUIREMENTS

NZBC E2/AS1 Table 23 Roof Underlay Properties	Property Performance Requirement	Results
Absorbency	$\geq 150 \text{ g/m}^2$	Pass
Vapour Resistance	$\leq 7 \text{ MN s/g}$	Pass
Water Resistance	$\geq 100\text{mm}$	Pass
pH of Extract	$\geq 6$ and $\leq 9$	Pass
Shrinkage	$\leq 0.5\%$	Pass
Mechanical	Edge tear and tensile strength	Edge tear (Average): Machine direction = 192 N, Cross direction = 106 N, Tensile strength (Average): Machine direction = 3.84 kN/m, Cross direction = 2.05 kN/m



### Handling & Storage

Handling and storage of Fastwrap FlameSpec HW Roof Underlay, 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 Data

Fastwrap FlameSpec HW Roof Underlay is a synthetic building underlay for use under roof claddings. The underlay consists of a micro-porous water resistant film laminated to two layers of non woven spun-bonded polyolefin. Fastwrap FlameSpec HW Roof Underlay is coloured grey on the top face and white on the bottom face, and is printed with laying lines. Rolls are wrapped in clear polythene film.

Accessories used with Fastwrap FlameSpec HW Roof Underlay which are supplied by the installer are:

- Fixings - stainless steel staples, clouts, screws or proprietary underlay fixings, or other temporary fixings to attach the roof underlay to the framing.
- Roof underlay support - minimum 1.0mm diameter Galvanised Bayonet or Kiwimesh wire mesh where required to support the roof underlay in accordance with NZBC Acceptable Solution E2/AS1, Paragraph 8.1.5.1. (Note: The mesh must be galvanised in accordance with AS/NZS 4534.)

### Installation Information

Installation must always be carried out in accordance with the Fastwrap FlameSpec HW Roof Underlay technical literature and the BRANZ appraisal by competent tradespersons with an understanding of roof underlay installation.

Fastwrap FlameSpec HW Roof Underlay must be fixed at maximum 300mm centres to all framing members with large head clouts 20mm long, 6-8mm stainless steel staples, self drilling screws or proprietary underlay fixings. The membrane must be pulled taut over the framing before fixing.

Fastwrap FlameSpec HW Roof Underlay may be run vertically or horizontally at roof pitches greater than 10°. It must extend from the ridge and overhang the fascia board by 20-25mm. Vertical laps must be no less than 150mm wide. Horizontal laps must also be no less than 150mm, with the direction of the lap ensuring that water is shed to the outer face of the Underlays. End laps must be made over framing and be no less than 150mm wide.

When fixing the product in windy conditions, care must be taken due to the large sail area created.

Any damaged areas of Fastwrap FlameSpec HW Roof Underlay, 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 150mm and taping, or by taping small tears.

In buildings which may be subject to infestation by birds or rodents we recommend that roof underlay is protected using Bayonet Hexagonal Wire Netting (50mm).



## FlameSpec HW Roof Underlay

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Fastwrap FlameSpec HW Roof Underlay must not be used under translucent sheeting.

### Size Range Available

Product Code	Width (mm)	Length (m)	Total (m <sup>2</sup> )	Weight (kg)	Barcode
FSHW135075	1350	55.6	75	8.93	9421026720351