

Enviroseal™ ProctorWrap™ HT-X High Tensile - X User Guide



**Enviroseal™
ProctorWrap™ HT-X**
1.5m x 34m (51m²)

Product Description:
Reinforced self supporting absorbent fire retardant synthetic vapour permeable roof underlay for use in residential or commercial applications as follows:

- Tiled and Slate Roofs
- Metal Roofs
- Walls & Gables

Product Code: 133391

Width: 1500mm
Length: 34m
Area: 51m²

NZBC E2/AS1 Table 23 Roof Underlay Properties		
Property	Performance Requirement	Results
Absorbency	≥ 150g/m²	Pass
Vapour Resistance	≤ 7 MNs/g	Pass
pH of extract	≥ 5.5 and ≤ 8	Pass
Shrinkage	≤ 0.5%	Pass
Water Resistance	≥ 100mm	Pass
Flammability Index	≤ 5	Pass

A product identifier code is printed on the underside of the underlay at 1m intervals. This product has been manufactured in conformity with EN 13859-1:2. Quality control checks on the finished product include:

- Weight
- Tear strength
- Tensile strength
- Elongation
- Water resistance
- Dimensional stability
- Water vapour transmission
- Properties after artificial ageing
- Flammability

Product Description

Bradford Enviroseal™ ProctorWrap™ High Tensile (HT-X) (the underlay) is a self supporting roof underlay for use under tiled, slate, profiled & pressed metal roof cladding.

The underlay offers a combination of high tensile strength, high absorbency and high water holdout without compromising vapour permeability to help protect the building elements and insulation from condensation as well as related problems such as mould, timber rot, corrosion and loss of thermal resistance.

The underlay is a UV stabilised tear resistant 3-ply fire retardant spun bonded polyolefin membrane with reinforcement scrim for use in commercial and residential roofing (or wall) applications.

Durability

Enviroseal™ ProctorWrap™ HT-X meets the durability requirement as specified in 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.

Although the underlay can be used as temporary protection during construction, it can not be used as a primary waterproofing membrane. Ensure that the underlay is covered by the primary roofing material as soon as possible and is **not left exposed for longer than 7 days.**

As good building practice, ensure any solvents in LOSP timber treatments have evaporated prior to application of the underlay to avoid damage to the underlay.

Control of Internal Fire and Smoke Spread

The underlay has an AS1530 Part 2 flammability index of no greater than 5 and meets the requirements of NZBC Acceptable Solutions C/AS2 to C/AS6, Par 4.17.8 (b), for surface finish requirements for suspended flexible fabrics, used as an underlay to exterior cladding that is exposed to view in occupied spaces. It may therefore be used with no restrictions in all buildings.

The underlay must be separated from fireplaces, heating appliances, flues and chimneys in accordance with the requirements of NZBC Acceptable Solutions C/AS1 to C/AS6, Paragraph 7.5.9 for the protection of combustible materials.

Occupational Health and Safety

All proper safety measures should be taken during installation of the underlay. All relevant OH&S and statutory regulations must be followed.

Enviroseal™ ProctorWrap™ HT-X is not designed for fall prevention and is not intended to support a person's weight, or to be walked upon unless supported below by a compliant safety mesh or approved equivalent.

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

Product Performance

Enviroseal™ ProctorWrap™ HT-X will perform in accordance with this specification in normal building applications when installed in accordance with the Product User Guide. Designers and users are recommended to make their own determination as to the suitability of this product to the specific project requirements.



BRANZ Appraised
Appraisal No.901 [2015]



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FOR ALL ROOF CLADDING TYPES

Secure Enviroseal™ ProctorWrap™ HT-X (the underlay) in place with sufficient proprietary underlay fixings, self drilling screws, 6-8mm stainless steel staples or 20mm large head clouts to hold the underlay in place prior to the fixing of roof battens or roof cladding.

The underlay must then be fixed at maximum 300mm centres capturing all edges, with proprietary underlay fixings, self drilling screws, 20mm large head clouts, by a batten or roof cladding fixings. Fixings should be at least 50mm from the edge of the underlay.

The underlay must span no greater than 1,200mm in one direction unless supported.

All horizontal laps must be at least 150mm wide and installed to ensure water is shed to the outer face of the underlay. To assist, a lap line at 150mm is printed on both edges of the underlay. End laps must be made over framing and be no less than 150mm wide.

Where ridge or other ventilation measures are utilised the underlay must be terminated to allow for the free passage of air.

At the eaves, ensure that the underlay is draped into the gutter no more than 25mm. Anti-ponding boards to support the underlay must be installed where required in Acceptable Solution E2/AS1 section 8.2.5, to ensure that any water collected by the underlay will be discharged into the gutter.

Repairs and penetrations

At penetrations, such as vent pipes and roof lights, an additional piece of the underlay should be laid upslope and taped in position, to channel water away from the opening. Any damaged areas of the underlay such as tears, holes, or gaps must be repaired by covering with new material lapping the damaged area by 150mm and taping. Small tears are repaired with Enviroseal™ ProctorWrap™ HighTack Tape.

TILED ROOFS

For tile and slate roof applications, the underlay should be laid horizontally across the rafters starting from the eaves, and secured in place with battens and/or counter-battens.

Except at the eaves, the underlay should be draped over rafters with adequate drape to allow for drainage of moisture.

Where local wind activity is likely to cause excessive flexing (flapping) of the underlay, it is recommended as good practice to fix a polyurethane pad in a staggered pattern under each second row of battens between each pair of rafters.

METAL ROOFS

All metal roofs

The underlay should be laid continuously over the entire area of the roof allowing water to drain effectively to the gutter.

Please refer to the table below regarding the requirements for a roof underlay support.

When installed vertically, if there is a risk that moisture might drain between the overlap, it is recommended as good practice to tape overlaps using Enviroseal™ ProctorWrap™ HighTack tape.

Commercial Roofing

The underlay can be installed horizontally or vertically where the roof pitch is 8° or over. Where the pitch is less than 8°, the underlay can be installed horizontally or when installed vertically, must be supported.

In buildings where a high level of moisture is generated, we recommend that sections 4.5.5 and 4.6 of the NZMRWCCoP are consulted. Good practice measures may include appropriate levels of ventilation and the use of air and vapour barriers to limit the passage of vapour into the roof space.

Residential Roofing

The underlay can be installed horizontally or vertically where the roof pitch is 8° or over. Where the roof pitch is less than 8° the underlay can be installed horizontally or when installed vertically, must be supported.

Flat profile roof sheeting

If the underlay is installed directly in contact with flat profile roof sheeting, the potential for drainage and drying of moisture, and the passage of vapour through the underlay will be restricted. It is recommended as good practice for a spacer drainage batten, a counter batten or spacer drainage mat to be installed above the underlay to provide a free path for drainage and ventilation.

CONTROL OF CONDENSATION

There are a large number of design factors that need to be considered in assessing and managing condensation risk, not limited to local climate, building use, position, thickness, type and porosity of other materials including bulk insulation, location and integrity of vapour and air barriers, roof pitch, roof space volume and complexity of design, and mechanical or natural ventilation both in the roof space and the interior.

Factors related to construction and building operation include the integrity of vapour and air barriers, ceiling penetrations, high levels of construction moisture and the provision of a clear pathway around all ventilation openings.

Particular care is needed in the colder climatic regions, high humidity buildings, and low pitched or "warm roof" constructions where the roof cavity volume is limited.

The BRANZ appraisal does not require any special measures to be undertaken when the underlay is used in skillion roofs, curved roofs, or metal roof designs where risk of condensation levels are high.

In such circumstances it is however recommended as good practice to refer to advice relating to the air and vapour barriers and ventilation contained within the NZ Metal Roof and Wall Cladding Code of Practice (NZMRWCCoP).

It is highly recommended that designers run a condensation risk analysis or seek further guidance if unsure.

DELIVERY, STORAGE and SITE HANDLING REQUIREMENTS

Enviroseal™ ProctorWrap™ HT-X rolls are individually wrapped in a transparent polyethylene sleeve. Rolls should be stored flat or upright on a clean, level surface. Keep away from direct sunlight and liquid water, and protect using the original packaging provided it is not torn or punctured.

Span	Roof Pitch	Requirement for Roof Underlay Support	
		Horizontally Installed	Vertically Installed
1,200mm or less	8° or more	No	No
	Less than 8°	No	Yes
Greater than 1,200mm	All	Yes	