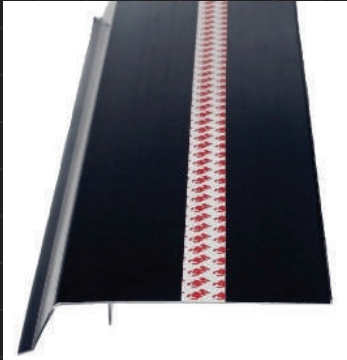


SMART EDGE - R.E.F™



INTRODUCING

The New Zealand Roofing Association and New Zealand Construction Industry requires that a roofing paper or roofing underlay be installed under metal or concrete roofing surfaces to protect the roof framing timbers and interior of the building from the build-up of condensation on the underside of the roofing product. The underlay or roofing paper is required to direct this moisture into the gutter system and outside the building envelope.

PURPOSE

The **Smart Edge - R.E.F™** has been created following the discovery of numerous failures with roofing underlays in New Zealand during building investigations involving "leaky buildings".

The roofing underlays or roofing paper from investigated buildings have not been providing adequate relief for the egress of the moisture build-up from the roof condensation. Observation included not only product deterioration, but also construction method failure with the paper or membrane being installed incorrectly.

The **Smart Edge - R.E.F™** alleviates the problem of the roofing paper or underlay deterioration and installation error. It allows for the moisture or water formed on the underside of the roofing product to discharge into the guttering system by picking up the moisture discharge from the roofing paper and delivering it outside the building.

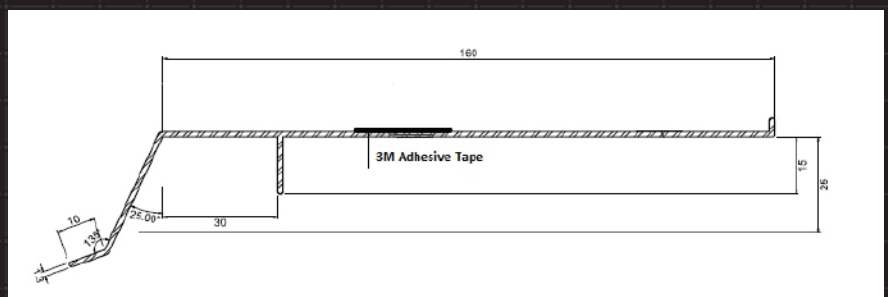
The **Smart Edge - R.E.F™** is a purpose designed roof edge flashing that incorporates several design features that makes it successful. The fascia alignment flange sits hard against the fascia board to provide simple and easy alignment of the **SMART**



EDGE - R.E.F™ which comes in 2.8m lengths.

Our inclusion of a double sided tape enables roofing wraps and papers to be adhered securely to the **SMART EDGE - R.E.F™** while the roof covering is installed.

The top edge of the flashing incorporates a 3mm turn up to prevent moisture tracking up the flashing into the roof space.



INSTALLATION

The **Smart Edge - R.E.F™** is installed around the entire perimeter of a building as well as along any roof valleys.

The **Smart Edge - R.E.F™** is installed on top of the last purlin or tile batten or under the last tile batten if required.



Fig. 1

1. Each 2.8m length of **Smart Edge - R.E.F™** is held firmly against the front face of the previous installed fascia and fixed in place with a galvanised clout into the purlin or truss. Fixings should be as high as possible on the flashing. (Fig. 1)



2. The double sided tape should have the front face removed by 130mm to allow the next length of **Smart Edge - R.E.F™** installed and lapped by 100mm (Fig. 2)



Fig. 2

3. The fascia alignment flange must also be removed for 100mm to allow for overlapping of the next length of **Smart Edge - R.E.F™**. This is easily done carefully with a sharp blade. (Fig. 3)



Fig. 3

Repeat this process around the entire perimeter.

Jointing

4. Each lapped joint should have a strip of 48mm PVC adhesive tape laid over it. This should extend from the 3mm up turn at the top of the flashing down to the fascia alignment flange. (Fig. 4)



Fig. 4

Jointing Hips

5. This should be done in a similar way except the **Smart Edge - R.E.F™** needs to be mitred and does not overlap itself. The PVC jointing tape should be applied as previously noted.

Roofing Paper or Membrane Installation

6. The 3M adhesive tape protective strip should be completely removed during the installation of the roofing paper or membrane and the membrane paper firmly pressed onto it.



7. Any excess paper should be **CAREFULLY** cut off at the front edge of the **Smart Edge - R.E.F™** so as not to cause damage. (If damage occurs, a section of the flashing must be replaced)

8. The roofing iron or tiles can then be installed as per the manufacturer's instructions, and then guttering as per specifications.

ANTI-PONDING BOARDS

The **Smart Edge - R.E.F™** is not an Anti-Ponding Board. Anti-Ponding boards which are noted for various applications, are built to prevent the roofing underlay or roofing paper from ponding as the paper travels under the second to last purlin and then over the last purlin and out into the gutter. The **Smart Edge - R.E.F™** can provide assistance to the anti-ponding board if one is installed.

DESIGN AND MATERIALS

The **Smart Edge - R.E.F™** is made from a ridged UV stabilised PVC and is compatible with all known roofing materials.

With PVC there is no rusting or corroding caused from contact or run off from incompatible materials so the **Smart Edge - R.E.F™** can also be used as an intermediary layer between dis-similar metals or products.

The PVC includes ultra violet light protection to provide durability as required under the NZ Building and Roofing codes of good practice.

BUILDING REGULATIONS

[NEW ZEALAND BUILDING CODE - NZBC]

Smart Edge - R.E.F™ (Roof Edge Flashing) meets the following requirements. (with the exception of the LRV)

NZS E2AS1 Third Edition 2011 4.3.1 Acceptable Flashing Materials, Table 20 Upvc Durability 50 years (sheltered) and 8.4.11a Flashing requirements (Figure 45a)

Clause B2.3.1c Durability Performance

Clause F2 Hazardous Building Materials: F2.3.1 **Smart Edge R.E.F** meet this requirement and will not present a health hazard to people.

CONDITIONS OF WARRANTY

The warranty is strictly subject to the following conditions.

(A) The products must be installed by a competent person familiar with working in the building construction trade as a qualified builder or qualified roofer.

(B) The system must be compliant with **Smart Smart Edge - R.E.F™** System technical literature current at the time of installation,

utilising Urban Building Products Ltd products or components specified in the **Smart Edge - R.E.F™** System technical manual. Where the **Smart Edge - R.E.F™** System technical manual does not provide a suitable detail for installation of the products then the installation must be in accordance with best trade practise determined in consultation with the relevant Territorial Authority and designer of the building works.

(C) Urban Building Products Ltd will not be liable under this warranty unless a written claim is notified to Urban Building Products Ltd within 30 days of the defect becoming reasonably apparent.

(D) This warranty is for the benefit of the original owner of the building where the **Smart Edge - R.E.F™** System has been installed. This warranty is not transferable to subsequent owners of the building.

(E) The building works in which **Smart Edge - R.E.F™** System have been incorporated must be designed and constructed in strict compliance with all relevant provisions of the current New Zealand Building Code ("NZBC"), regulations and standards, and the building consent relating to the building works.

(F) The customer's sole remedy under this warranty is that Urban Building Products Ltd will either supply replacement products or rectify the affected products.

(G) Urban Building Products Ltd will not be liable for any losses or damages (whether direct or indirect) including property damage, personal injury, consequential loss, economic loss or loss of profits, arising in contract or negligence or howsoever arising. Without limiting the foregoing Urban Building Products Ltd will not be liable for any claims,

damages or defects arising from or in any way attributable to poor workmanship, poor design or detailing, settlement or structural movement and/or movement of materials to which the **Smart Edge - R.E.F™** System is applied, incorrect design of the structure, acts of God including but not limited to earthquakes, cyclones, tornado's, floods or other severe weather conditions or unusual climatic conditions, efflorescence or performance of anything applied to the **Smart Edge - R.E.F™** System, normal wear and tear, growth of mould, mildew, fungi, bacteria or any organism on the surface of any products, (whether on the exposed or unexposed surfaces).

(H) All warranties, conditions, liabilities and obligations other than those specified in this warranty are excluded to the fullest extent permitted by law. This warranty does not exclude or modify any legal rights a customer may have under the Consumer Guarantees Act 1993. Unless otherwise specified in writing at the time of sale, Urban Building Products Ltd assumes no liability for the **Smart Edge - R.E.F™** System being fit for any other purpose under the Building Act 2004, other legislation or at common law.

