

# ***EPDM INSTALLATION REFERENCE GUIDE***

## **Fully Adhered EPDM Roofing System**

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## **System Overview**

The fully adhered EPDM roofing system is quick and easy to apply and there are minimal components required for a successful installation. Basic components consist of the following:-

- EPDM membrane
- Water-based Bonding Adhesive (deck adhesive, white in colour)
- Solvent-based Bonding Adhesive (bonding adhesive, yellow in colour)
- QuickPrime Plus primer (primer, black in colour)
- 3”seam tape
- 9” formflash
- Metal edge trims
- hand roller
- Sharp scissors

## Membrane Application;-fully adhered system

Ensure the deck is clean, dry and free of grit or sharp obstructions. This is especially important with pitched roofs terminating on the flat roof, as there is often plenty of debris that can fall onto it. As with the roof example below, it is necessary to remove all existing waterproof covering down to substrate level.



If necessary, remove all decayed and rotting timbers, and provide a new substrate.



Structural plywood or preferably OSB3 sterling board is the standard. A minimum 18mm thickness is required.



Lay the membrane in situ onto the deck for measurement, with enough material extending beyond the perimeters to trim up later.



Roll half the membrane back towards the middle of the roof. Using a 9” emulsion roller, squeegee or soft broom, apply the Water-based bonding adhesive (deck adhesive) onto the substrate surface only. It is not a contact adhesive and therefore none is required for the EPDM surface itself. **The adhesive should not be allowed to freeze and must not be applied if freezing temperatures are forecast within the following 24 hour period after bonding.**



Once applied, the membrane can be laid into the adhesive whilst still wet. Roll the membrane into the adhesive avoiding stress or wrinkles, taking care to spot any debris that may have fallen onto the deck in the meantime.

Entrapped air and wrinkles can be removed by gently smoothing with a soft bristle broom, adding more pressure with each pass of the broom. Do not stretch the sheet.

Roll back the other half of the membrane up to the already applied adhesive and repeat the procedure.

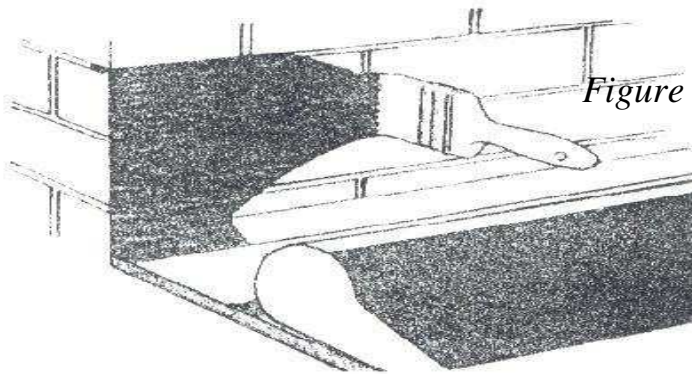


**N.B.** It is important that a 6” wide strip along all perimeter edges are glued using the yellow solvent based contact adhesive, thus ensuring the membrane is immediately secured in the event of strong winds causing uplift before the water based decking adhesive has completely bonded.

#### ADJOINING BRICKWORK

If the flat roof adjoins the house wall a chase should be cut into the mortar joint between the courses of brick. As a general rule the chase should be at least 6” above the level of the roof and at least 1” deep. Bonding adhesive is then applied to both up-stands and membrane .

Remember the adhesive will grab as soon as contact is made so don’t rush this stage of the installation. Also be sure that the chase has been thoroughly brushed out before the Bonding adhesive is applied, and the membrane is taken right into the chase. It may then be re-pointed using silicon mastic.



*Figure 1*



Note on the photograph that loose render on the adjacent wall has been chopped away and a timber strip fixed to provide a satisfactory surface to adhere to. (The rendering will of course be made good after installing the membrane) When gluing the upstand remember to use the **contact adhesive** (yellow) on both surfaces to be mated and to let it become touch dry before mating together.

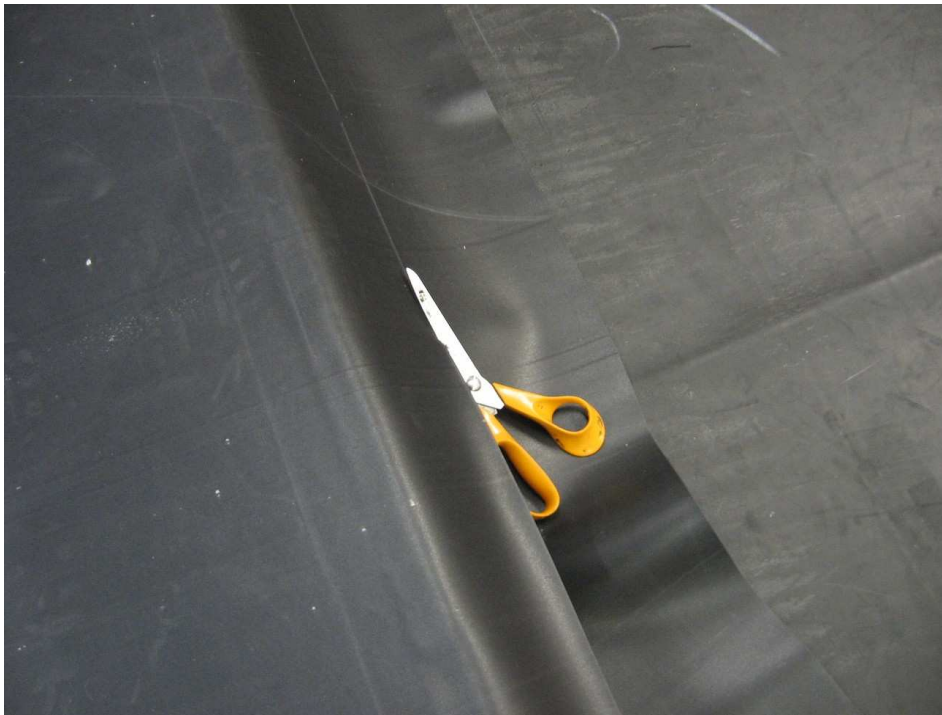
## Edge trims;- Fascia edge and gutter edge

Once the roof is watertight, the roof needs to be finished with the metal edge trims. These are attached by mechanically fixing. The sizes can be tailored with a sharp pair of tin snips. It is important that any cutting tools used are sharp, as blunt tools will damage the trims, and consequently, the cosmetic finish of the roof will appear unprofessional.

Care needs to be taken when handling the trims, as some cut edges are sharp and therefore a risk of damage to the membrane exists. It is good practice to radius the cut edges to take off the sharp point.

At the edge of the roof, make sure there is enough substrate edge to fix the trims to. Fit some 2 x 1 timber batten if necessary to create an adequate fixing.

At the gutter edge, excess membrane needs to be trimmed off. Mark the membrane with the blunt edge of the scissors and cut away the excess. The remaining membrane will fall naturally into the gutter at the correct length.



An excess of membrane at the gutter edge corners needs to be tidied up and secured.



This excess can be folded around and glued or attached to the side of the roof edge with a hammer tacker.





Use the tin snips to cut the trims to size. Cut a V-shape in the trough at the bottom edge also.



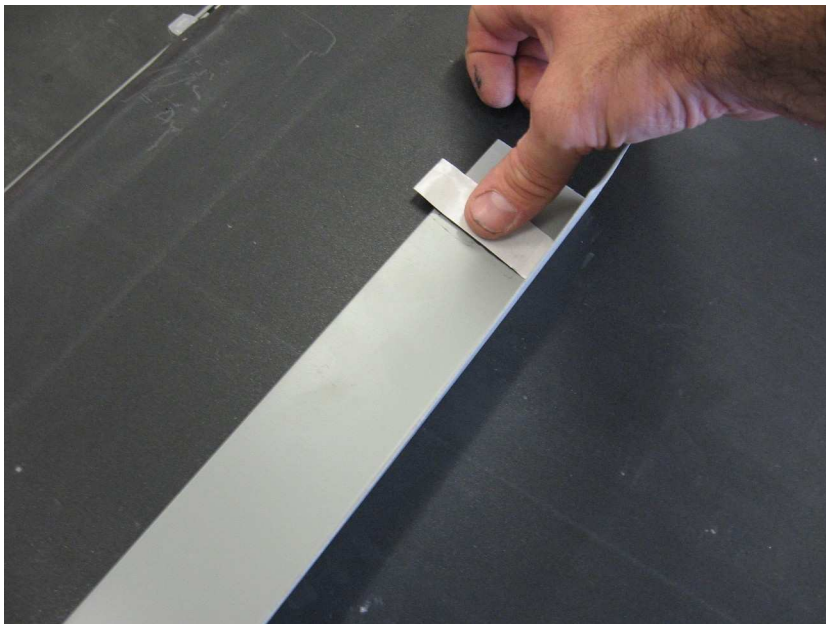
Bend the trims around the required angle.



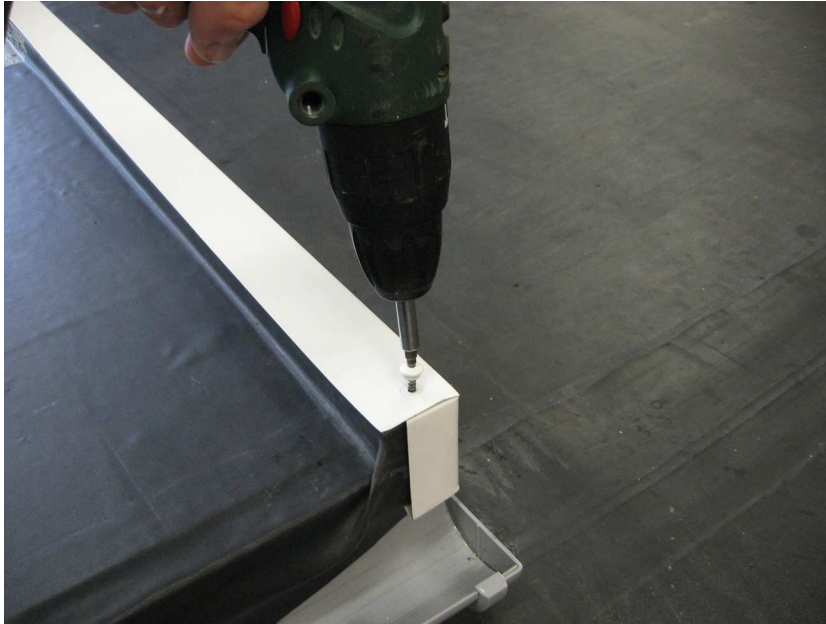
A butyl sealing tape needs to be applied to the underside of the trims at the fixing points to waterproof the fixing penetration. 50mm x 25mm of tape is adequate for each fixing. (The fixing points are evenly distributed and are generally 300mm apart.) Silfix U9 silicon sealant can also be used for waterproofing the fixing penetration by applying a generous blob to the membrane at the point where the trim is to be fixed.



Apply the tape to the underside as shown, and peel off the backing paper.



Offer the trim to the desired position on the edge, and fix with a cordless screwdriver.



Butt straps are used at two mating trim edges together for securement and neatness.



The above photograph illustrates an **external butt joint** as used on the **gutter edge**



The photograph above illustrates an **internal butt joint** on the **fascia edge**



Illustration of roof model with trim detail; note radius formed on corners with sharp tin snips for neatness