

# THE SIMPLEST INSTALLATION GUIDE

For the Fully Adhered System



## **DISCLAIMER**

This information is given as a guide only. If your roof has a lot of detail (ie) multiple projections through the roof etc, we do not recommend this as a DIY project.

Permaroof (UK) Ltd. Cannot accept liability for incorrect installation of a DIY kit.

Unfortunately we can not give verbal advice on fitting a DIY installation.

# AQUAGARD EPDM FLAT ROOFING SYSTEMS

## INSTALLATION GUIDE FOR THE FULLY ADHERED SYSTEM

**It is recommended that this guide is read and fully understood before any installation is undertaken. The diagram sketches are provided to clarify and highlight points of detail.**

The following guide covers the technique for the Fully Adhered System. This system is best employed on new build roofs; or when the existing roof decking has just been replaced with new.

### Tools & Components

Before any installation is undertaken, the following tools will be required:-

- Sharp Scissors
- Cordless Drill/Driver
- Paint/Gluebrush
- 9" Fleece type emulsion roller.
- Seam Roller
- Tin Snips (secateur type are best)
- Measuring Tape

### Glossary of Components

- EPDM rubber membrane – The waterproofing membrane.
- Water-based Adhesive – To bond the membrane to the deck.
- Adhesive & Membrane Cleaner – For gluing EPDM to EPDM & brickwork etc.
- Prefabricated external and internal corners – Simplifies detailing.
- Formflash EPDM – Self curing EPDM strip used with the adhesive - adaptable to irregular shapes and designed to flash the system details where the membrane has to be cut.
- Aluminium Trim – Fixed along the edges.
- 791 Sealant Mastic – Used when mechanically fixing trims, also as lap sealant.

### Sequence

#### 1.) Adhering the Membrane

The deck is swept clean and the membrane is unfolded and positioned over the roof. This should be left to relax for about thirty minutes to allow any heavy creases to ease out of the rubber. Sufficient membrane must be left

The membrane is then folded back on itself from the centre of the roof to expose half of the deck.



Water-based adhesive is then applied over the deck using a 9" wide Fleece emulsion roller (not foam) to a consistent even thickness (about 0.5m – 1mm). The EPDM membrane is also lightly coated with the adhesive. In warm weather the bond can be made immediately as the tack off time is accelerated by higher temperatures.

However, in cold weather the adhesive should be allowed to tack off for several minutes before adhesion is made.



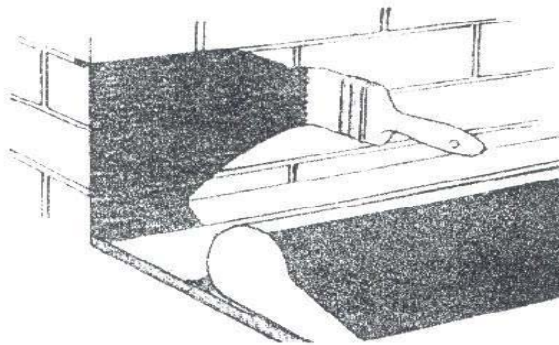
When mating the membrane to the deck, the loose end of the rubber is lifted and walked out to the edges. Any creases or bubbles are then brushed out with a soft broom, working from the centre to the edges. The other half of the membrane is then folded back over the glued half, revealing the deck and the process is repeated.

N.B. The water-based adhesive is designed solely for bonding the membrane to the flat roof deck and is not suitable for adhering up-stands or edgings. The **bonding** adhesive must be used for this, but remember to use the membrane cleaner (on the rubber only) before the bonding adhesive is applied. (Bonding adhesive is applied to both surfaces to be mated and allowed to become touch dry before mating).

## 2.) Adjoining Brickwork

If the flat roof adjoins the house wall a chase should be cut in 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 (see *figure 1*) – don't forget to clean the membrane using the membrane cleaner.

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 either mortar or silicon mastic.



*Figure 1*

## 3.) Outside/Inside Corners

Applies if there is a roof light, chimney stack or an L shaped up-stand on your roof. We supply outside/inside corners that have been prefabricated to save time and eradicate fiddly detailing.

When fitting corners the membrane must be glued up first. The corner is then glued over the membrane, ensuring the cleaner is used on both the membrane and underside of the rubber corner-piece. When in place the edges of the rubber corner must be sealed with the rubber sealant mastic.

## 4.) Under Tiles

If the flat roof adjoins a pitched roof, the membrane must be taken up under the tiles or slates at least 12". The bottom rows of tiles or slates must be removed to allow this. The membrane must be fed under the sarking felt.

If the bottom rows of tiles are on timber lay boards then the membrane should be glued to these lay boards using the adhesive.

## 5.) Detailing around Vent Pipes

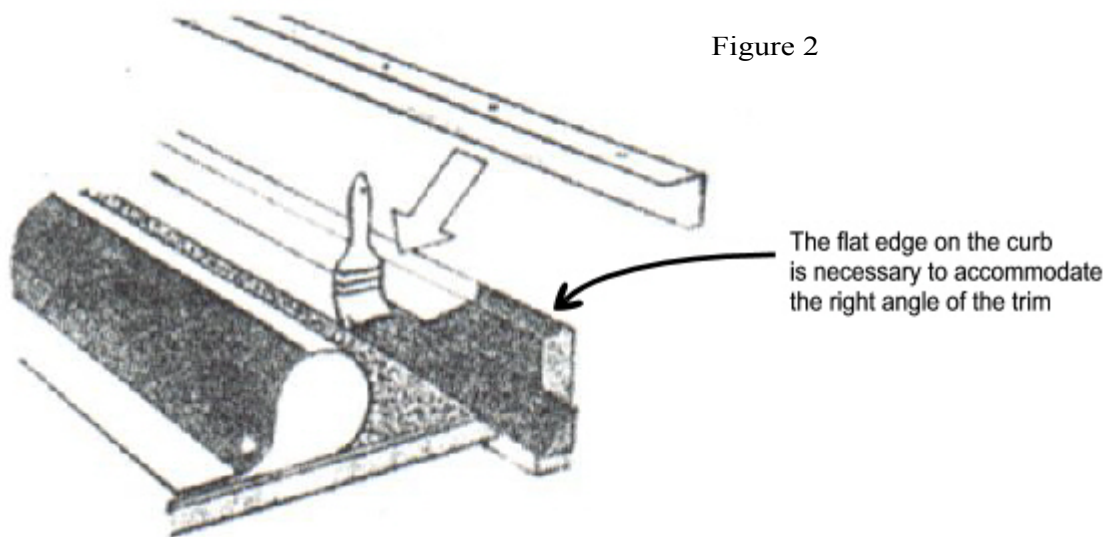
If pipes of any description are projecting through the roof, prefabricated pipe boots can be supplied if required. However, in the majority of cases, detailing is achieved as follows:-

The centre of the pipe is marked on the membrane in the exact location where the pipe will pass through when the membrane is installed. A circular hole is then cut in the membrane half the diameter of the pipe. The membrane is then stretched over the pipe and pushed down around the base. This will form a watertight seal by itself. It is advisable to finish with a strip of rubber glued over. Sealant is then applied over the joints.

## 6.) Fixing the Perimeter Edge Trim

Before fixing the aluminium perimeter edge trim it is important that the top of the watercheck curb is flat to accommodate the angle of the trim. If the existing curb takes the form of an angle fillet which is fixed above the fascia then it should be removed and replaced with a tilers batten or similar.

Prior to the fixing, the membrane is glued over the edges using Bonding Adhesive (*fig 2*) - don't forget to use the membrane cleaner on the rubber before applying the adhesive. The trim is placed along the roof edge, trapping the EPDM membrane.



Before the trim is fixed, sealant mastic must be applied to the underside of the horizontal trim face where the screw will pass through. This will seal the hole in the membrane made by the screw. It is recommended that the trim is fixed every 400mm and that the screw caps are used to leave a neat finish. (*Figures 2 & 3 illustrate this section*).

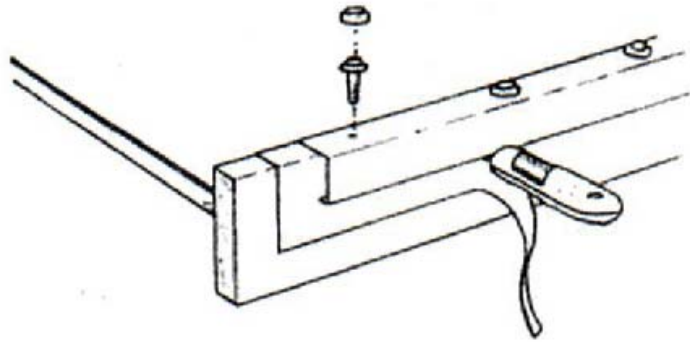


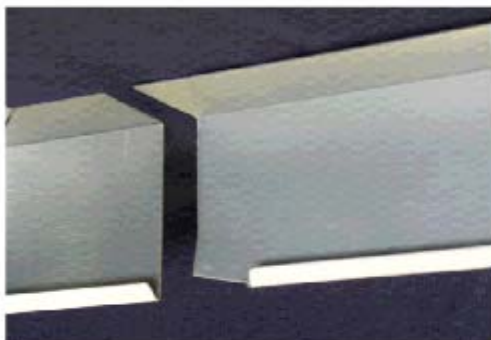
Figure 3

The open ends of the trim can be closed off easily using tin snips and then bending (*see the photograph below*).

Where it is necessary to join the lengths of a trim, a 1" section of the turned up bottom drip is removed using tin snips and slid into the adjoining length, the trim faces overlapping (*the photographs below illustrate this section*).



*Photograph shows finished Edge & Gutter Trim*



### Joining two lengths of Trim

Take out section along bottom edge as shown in illustration and slide into subsequent trim.

*Shows internal section*



### How to make a 90° Bend

Using tin snips, take V sections on top and bottom flanges in line with each other and bend.

## 7. Fixing the Gutter Trim

Before fixing the Gutter Trim, a Tilers Batten should be fixed to allow the trim to be fixed through the vertical face.

The gutter trim is always fixed through the vertical face, sealant mastic applied to the inside of the trim where the fixings pass through.

