

# Installation of illbruck Membranes to Windows & Doors Windows Projecting Externally from Backing Wall

## Application of Membrane to Window (or Door) Frame

In most cases, it is probably easier to apply the membrane after fixing the window to avoid the membrane being dislodged during the installation process whilst the adhesive is uncured.

1. Wipe clean the perimeter edge of the window (or door) frame using illbruck AW421 or AW414 Cleaners. Take care not to splash solvent onto powder coated frames or other sensitive surfaces.
2. Measure and pre-cut individual lengths of ME220 to size to suit whether using ME241 EPDM Corners or not (see below).
3. Starting at the sill, apply a continuous bead of OT015\* at a minimum 10 mm dia. into the outermost frame groove or other appropriate location.
4. Place the edge of ME220 EPDM Membrane onto the adhesive bead to align 15 mm inside the edge of the membrane and apply finger pressure until the adhesive is just visible at the edge along the length of membrane (the membrane will pass over the fixing lugs/brackets).
5. To ensure that a good bond takes place and that the adhesive is evenly spread, apply firm pressure and roll over the top of the membrane (with the adhesive underneath) to consolidate the bond using a seam roller. Take care to ensure that the membrane is sealed around the fixing lugs/brackets. The compressed bead should now be approximately 20-30 x 2-3 mm. If it is not possible to apply a consolidated bead of minimum 20 mm, please consult tremco illbruck technical department.

If carried out correctly, a small amount of adhesive will have been forced out from underneath the edge of the membrane and should now be visible. A termination bar may be used to secure the membrane to the frame. This provides a more secure fixing, particularly if the membrane is applied prior to frame installation.

If used, place the termination bar flat into or across the groove and fix by screwing through the adhesive bead, 50 mm from each end and at max. 250 mm centres.

## Application of Membrane to Backing Wall

If a breather membrane has previously been applied to the backing wall, cut back to the line of the perimeter membrane to enable the latter to be bonded/sealed directly to the backing wall (sheathing board).

Ensure the structure is free of debris and other material which may affect adhesion.

**Using ME241 EPDM Corners (it is strongly recommended to use these in order to provide a robust seal of the membrane at the corner joints).**

## Application with ME241 Corners installed before ME220

6. At each window frame corner, place the ME241 Corner 'dry' with the flanges against the corner of the window frame and the backing wall. Use a marker to indicate the proposed location. Remove ME241, apply OT015\* to the backing wall as shown in Fig.1 and place ME241 onto the adhesive. Consolidate by pressing and rolling until the adhesive is seen at the edge of the Corner (Fig.2).
7. Cut the membrane to appropriate lengths for the sill, jambs and head as in step 2 above. The membrane should overlap the Corner by running past the window dimension. The separate lengths should be overlapped and bonded to the backing wall and Corners with OT015 in the above order to ensure water run-off. Ensure that the linear membrane is fitted with a 90°

## Method Statement

### ME220 EPDM Membrane and OT015 High Tack Membrane Adhesive (with or without Termination Bar)



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fold between window frame and sheathing board. Also bond the short edges (width) of the membranes with OT015 to the ME241 to prevent any water ingress.

8. Seal the edge joint between the newly applied membrane and the existing breather membrane (if applicable) using illbruck ME315 Total Protection Tape.

### Application with ME241 Corners installed after ME220

9. Cut the ME220 to appropriate lengths for sill, jambs and head (to match the window dimensions) and apply in this order fixing to frame as steps 1 – 5 above and backing wall with OT015. Ensure that the linear membrane is fitted with a 90° fold between window frame and sheathing board. Consolidate the adhesive bond using a seam roller.
10. Place the ME241 Corner 'dry' with the flanges against the corner of the window frame and the backing wall and use a marker to indicate the proposed location. Remove Corner, apply OT015 adhesive to the backing wall as shown in Fig.1 and place Corner onto the adhesive. Consolidate by pressing and rolling until the adhesive is seen at the edge of the Corner (Fig.2).
11. Seal the edge joint between the newly applied membrane and the existing breather membrane (if applicable) using illbruck ME315 Total Protection Tape.
12. 15 mm inside the chalk line, continuing past the edge of the frame for the distance covered by the width of membrane running at 90°. If the ME220 overlap onto the sheathing board is wider than 200 mm, more adhesive will be required to bond to the board. Apply dots or short linear beads of OT015 to the board between the frame and the membrane edge bead at intervals of no more than 200 mm. On particularly porous substrates, it may be necessary to use CT113 EPDM Membrane Adhesive instead of OT015 or prime the structure first with diluted CT113 (refer to tremco illbruck TDS), or ME902 Butyl & Bitumen Spray Primer.
18. Push the ME220 carefully into place ensuring that firm contact is made with all adhesive applications and consolidate with a seam roller. Ensure that the edge bead is just visible along the length of membrane. The compressed bead should now be approximately 30 – 35 x 2-3 mm.
19. Apply adhesive as necessary following the guidance above to ensure that all folds and overlaps are sufficiently bonded. If necessary, apply a patch of ME220 rather than rely solely on adhesive to seal holes or gaps.
20. As a final check, inspect the full perimeter seal, with particular focus on the corner joints to ensure a complete seal without any gaps.

### Making the Connection to Structure – without using ME241 EPDM Corners

12. Ensure the backing wall substrate (typically sheathing board) is free of debris and other material which may affect adhesion. Hold the ME220 against the underside of the sill, and fold against the board ensuring that the membrane is tight to both surfaces. Mark a chalk line to indicate the edge of the membrane on the board.
13. At the extents of the membrane which run past the dimensions of the frame, tuck the un-bonded portion of membrane tight under the sill and fold at 90° to return down the face of the sheathing board and make a horizontal cut level with the face of the sheathing board and in line with the bottom of the sill using illbruck cutting shears from the end of the membrane towards the frame. This only needs to be long enough to span from the end of the membrane, across the perimeter gap to meet the frame.
14. Fold the flap produced by cutting to locate flat against the jamb of the frame. The width of the flap should be equal to the depth of the frame (front to back), or minimum cover required onto frame (if less) plus the distance of the projection from the structure to the back of the frame. For example: 75 mm depth of frame plus 30 mm projection = 105 mm flap of ME220.
15. Bond the flap onto the jamb using OT015.
16. Repeat step 12- 15 at the jambs and head. The flaps produced by the cutting will fold onto the top of the frame and under the sill at the jambs and fold onto the jambs at the head.
17. Pull the membrane away (if necessary, fold back and secure to frame with masking tape) and apply a bead of OT015 at approximately 10 mm diameter, continuously

#### NOTE:

It is not necessary to spread the OT015 adhesive with a pallet knife or similar prior to pressing the membrane into place. Neither is it necessary to over-paste the edges of the membrane with additional adhesive. If any part of the ME220 membrane is to be bonded to or is required to link up with or overlay an existing membrane made from a bitumen, asphalt or polyethylene based material an alternative adhesive may need to be used and a separate site test must be conducted to ensure material compatibility. We provide a service for testing compatibility of our adhesives with 3rd party materials and would advise that our representatives are made aware of this requirement in order to organise appropriate samples and to instigate the required testing (comprehensive testing takes up to four weeks).

\*OT008 Paste Adhesive can be used instead of OT015 by following the instructions as above. Refer to the technical data sheets for further product-specific advice and guidance.

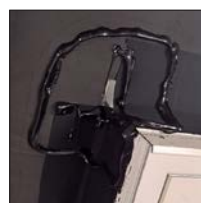


Fig 1. OT015 Adhesive beads applied; linear membrane already bonded



Fig 2. ME241 Corner bonded