Installation of illbruck Membranes to Windows & Doors

Windows Projecting Externally from Backing Wall

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Method Statement

ME220 EPDM Membrane with Gasket and OT015 High Tack Membrane Adhesive

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.

1. Carefully locate fixing lugs/brackets as appropriate to the frame type and installation detail without interference with the profile groove which the gasket is to be located into. Fix window.
2. Having selected the appropriate integral gasket type attached to the ME220 EPDM Membrane to suit the specific window profile, 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, fix the ME220 membrane by feeding the gasket 'bubble' into the groove on the perimeter edge of the frame. If there is no suitable groove under the sill, remove the gasket and bond the membrane to the sill using OT015 High Tack Membrane Adhesive.
4. Continue with the jambs and then the head.
5. The corner overlaps should be made so as to shed water downwards. Gasket which is overhanging the window frame and which will impede bonding of the overlaps to each other or the backing wall should be carefully trimmed off.

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.

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).

If the ME220 is bonded to the window frame with integral gasket, the ME241 Corners must be applied after the ME220:

6. 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 in steps 2 – 4 above and backing wall sheathing board with OT015*. Consolidate the adhesive bond to board using a seam roller.
   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).
7. Seal the edge joint between the newly applied membrane and the existing breather membrane (if applicable) using illbruck ME315 Total Protection Tape.

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Making the Connection to Structure – without using ME241 EPDM Corners

Commence bonding of the ME220 to the structure, starting at the sill.

8. Ensure the backing wall substrate (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.
9. At the extents of the membrane which run past the dimensions of the frame, trim off the exposed gasket, tuck the un-bonded portion of membrane tight under the sill and fold at 90° to return down the face of the sheathing board. Mark a chalk line to indicate the edge of the membrane on the board. 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. 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.
10. Bond the flap onto the jamb using OT015.
11. Repeat steps 8-10 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.
12. 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 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.
13. 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.
14. 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.
15. As a final check, inspect the full perimeter seal, with particular focus on the corner joints to ensure a complete seal without any gaps.

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 Sheet for further product-specific advice and guidance

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

Fig 2. ME241 Corner bonded