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Application of illbruck Self-Adhesive Window Membranes

INSTALLATION GUIDANCE

TREMCO
Construction Products Group

Installation of illbruck self-adhesive window membranes

This is an illustrated guide to demonstrate the correct method for installing a range of illbruck Self Adhesive window membranes.

This guide should be read in conjunction with the relevant illbruck Technical Data Sheets, Safety Data Sheets, and written method statements where available: https://www.illbruck.com.

The examples shown in this guide are based on a forward-facing window installed in a framed wall construction.

Actual project details, fixing support arrangements and window profiles may differ – however the same basic installation principles will apply. If project details differ significantly contact Tremco CPG UK Ltd for advice. Further on-site toolbox training can be arranged where required by contacting Tremco CPG UK Ltd.

All edges of the membrane must be securely bonded and consolidated with an uninterrupted 20 to 30 mm bond around the entire frame as described in this document. The width of membrane bonded back to the substrate should be a typically 100 mm with a minimum width of 50 mm.

Any deviation from illbruck's best practice installation guidance may affect the performance of the installed membrane and invalidate any warranties.

This guide covers the use of the following illbruck Self-Adhesive perimeter membranes:

Product	**Reaction to Fire in accordance with EN 13501-1**
illbruck ME020 FR Window & Door Sealing Membrane HD Self-Adhesive	Class B-s1, d0
illbruck ME480 Butyl Façade Sealing Tape (SA)	Class B-s1, d0
illbruck ME481 Butyl Façade Sealing Tape (SA)	Class B-s2, d0

Tools and accessories:

- Sharp retractable bladed knife or illbruck cutting shears
- Marker or pencil to mark out the membrane position
- Stout seam roller
- illbruck AT200 General Purpose Cleaner for Degreasing Metals
- A clean cloth for use with illbruck AT200

Before commencing work:

- Ensure all surfaces are clean, dry and free from dust, grease and debris and free from any contaminants that may affect the adhesive bond.
- Any over spills or excess cured fire rated silicone or compounds should be mechanically removed from the face of the sheathing boards where the illbruck membrane will be applied. If the overspill is excessive, please consult illbruck's Technical Department for further assistance.
- Where any silicone-based compounds remain, such as within the board joints, they will need to be treated with an illbruck primer prior to installing the membrane/adhesive.
- Clean the window/door frame with illbruck AT200 or a plain mineral spirit such as methylated spirit.
- illbruck ME020, ME480 and ME481 should always be directly bonded to the substrate and must not be lapped and adhered to an existing full façade membrane.
- If a façade membrane has already been applied over the sheathing board, temporarily cut back sufficiently to allow for the application of the ME020, ME480 or ME481 – this will be reinstated afterwards.
- Where the membrane interfaces with a third-party waterproofing material or similar, seek further advice on compatibility from Tremco CPG UK Ltd.

Application method:

Step 1:

Window membrane application shall always start at the sill.

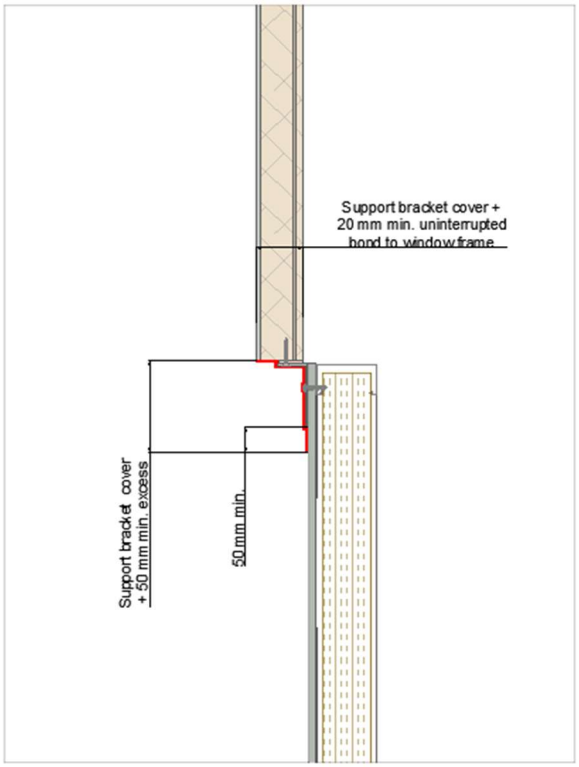

Figure 1

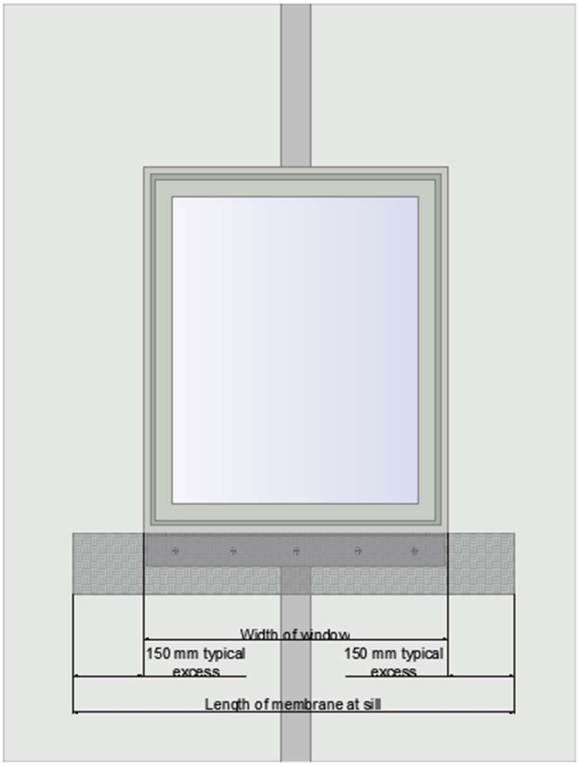

Figure 2

- Determine the membrane width and length required.
- At the sill the width of the membrane should be wide enough to cover the support brackets and with a 100 mm excess (minimum 50 mm) to enable bonding to the primary substrate on the trailing edge, with a minimum of 20 mm uninterrupted bond to the window frame. It is possible in some circumstances that the sill membrane may be wider than the head and jambs (Figure 1).
- For the membrane length, measure the window frame width and add a 150 mm excess at each side of the frame and cut to required length. (Figure 2).

Step 2:

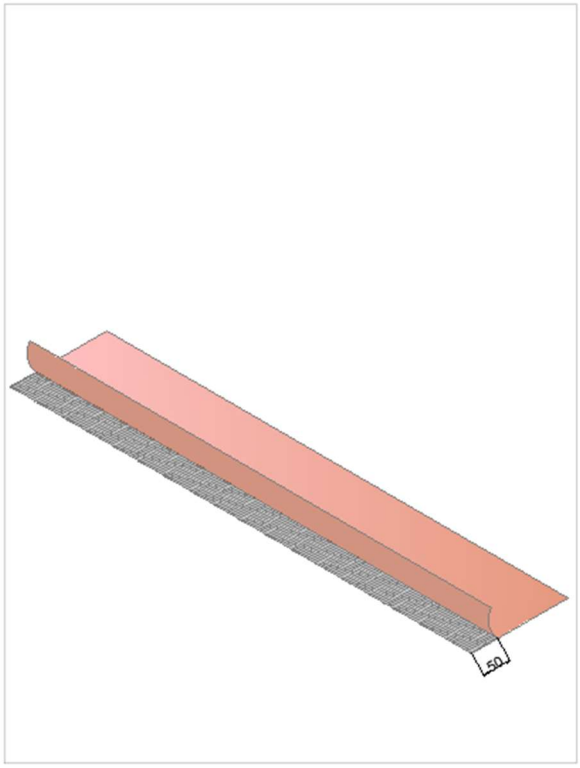

Figure 3

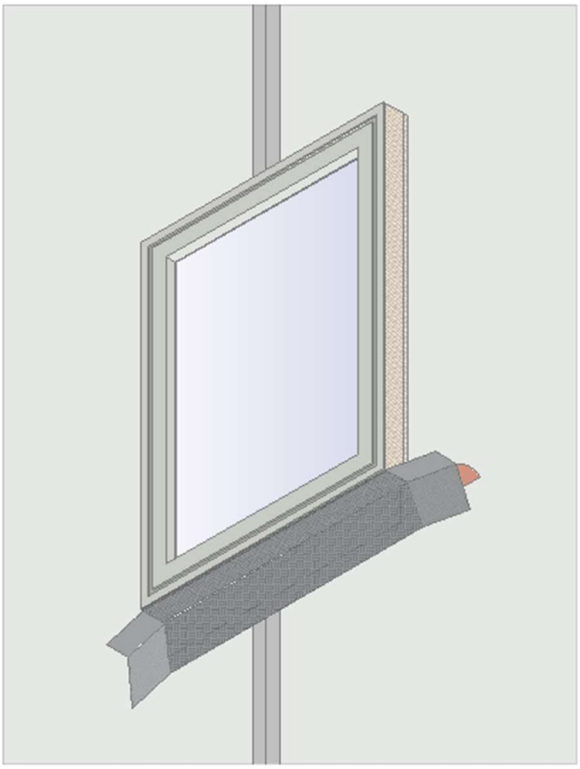

Figure 4

- Offer up the membrane to the underside of the sill, ideally towards the middle of the frame. Position the membrane so that it is central and mark up the centre with the required overhang at each end. Do not remove the release liner at this stage.
- Once happy with the positioning, peel back the release liner on one long edge by up to 50 mm (Figure 3).
- Offer up the membrane and smooth on to the frame in a straight line, gently pressing the membrane into the correct position ensuring there are no wrinkles in the membrane. (Figure 4).
- Once located and bonded, the rest of the liner should continue to be peeled at the same edge, then the membrane carefully smoothed into position on to the remainder of the frame then continuing down on to the face of the sheathing board, without any wrinkles, ensuring that a tight 90 degree fold between frame and board is achieved.
- Should any wrinkles occur, the membrane can be peeled back from the board and re-laid.
- Once there are no wrinkles, consolidate initally by hand and then by roller, applying firm pressure across the surface of the membrane where it is in contact with the frame and sheathing board.

Step 3:

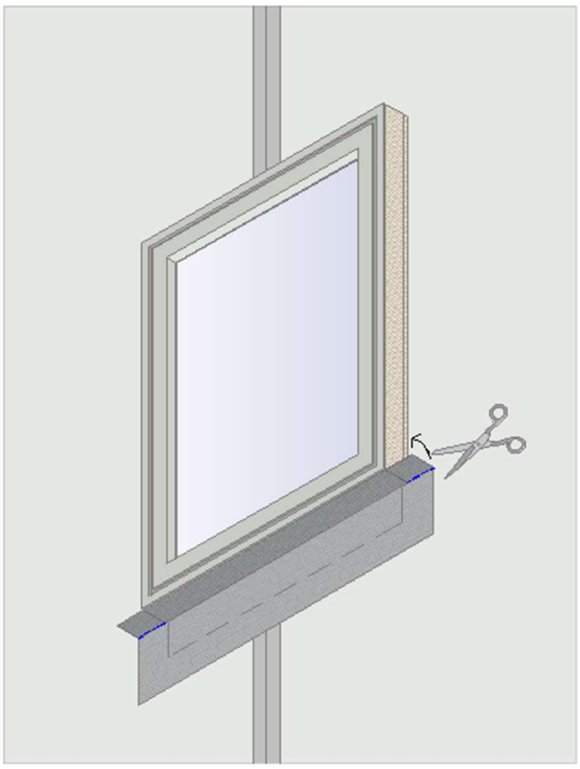

Figure 5

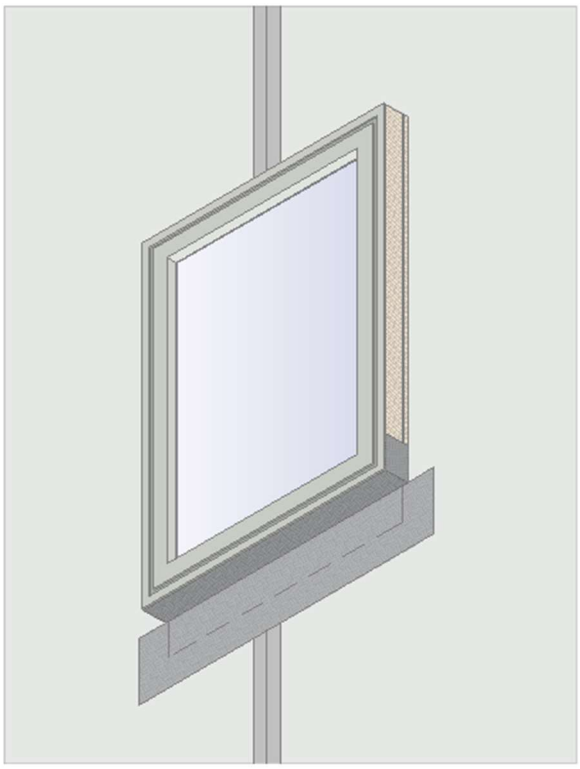

Figure 6

- There should now be an un-bonded section of membrane at each end of the window frame.
- Using illbruck cutting shears cut a neat straight line (shown in Figure 5 in blue) from the membrane ends towards the window frame to form a flap. Fold the flap upwards and bond to the window frame jamb (Figure 6).
- Once the membrane has been cut to form the flap, the length of the flap can be cut down to a minimum of 100 mm if required.
- Once there are no wrinkles, consolidate all bonds initally by hand and then by roller, applying firm pressure across the complete surfaces of the membrane.

Step 4:

The next membrane sections to be installed shall be the window jambs

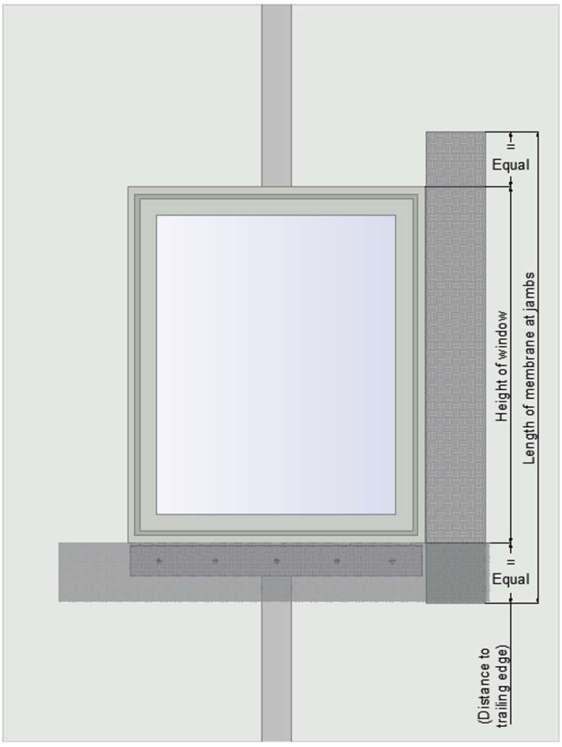

Figure 7

- To determine the length of membrane for the jambs, measure the window height. Then the excess is calculated by measuring the distance from the bottom edge of the sill /window frame to the trailing edge of the sill membrane. This excess is then added to both the top and the bottom of the membrane length (Figure 7).
- Position the membrane so that it is central and mark up the centre with the required overhang at each end.

Step 5:

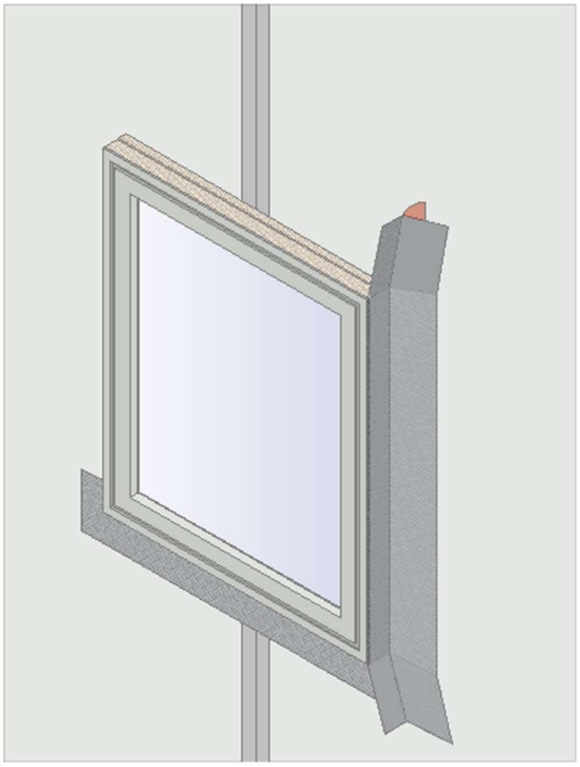

Figure 8

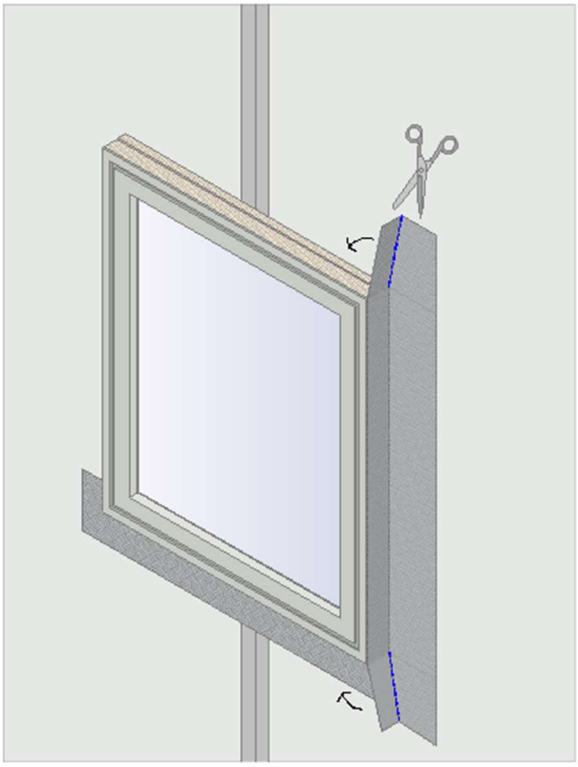

Figure 9

- Peel back the release liner on one long edge by up to 50 mm and offer up the membrane and smooth on to the frame in a straight line, gently pressing the membrane into the correct position as previously described (Figure 8).

- Once located and bonded, the rest of the liner should continue to be peeled at the same edge, then the membrane carefully smoothed into position on to the remainder of the frame then continuing on to the face of the sheathing board, ensuring there are no wrinkles in the membrane and that a tight 90 degree fold between frame and board is achieved.

- Cut the un-bonded sections of membrane at each end of the window frame and fold around the head and sill (figure 9).

- Once the membrane has been cut to form the flap, the length of the flap can be cut down to a minimum of 100 mm if required.

Step 6:

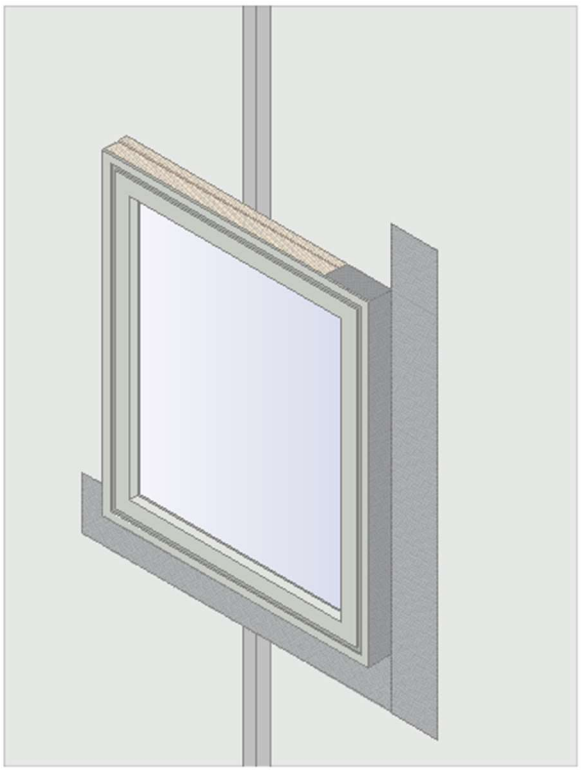

Figure 10

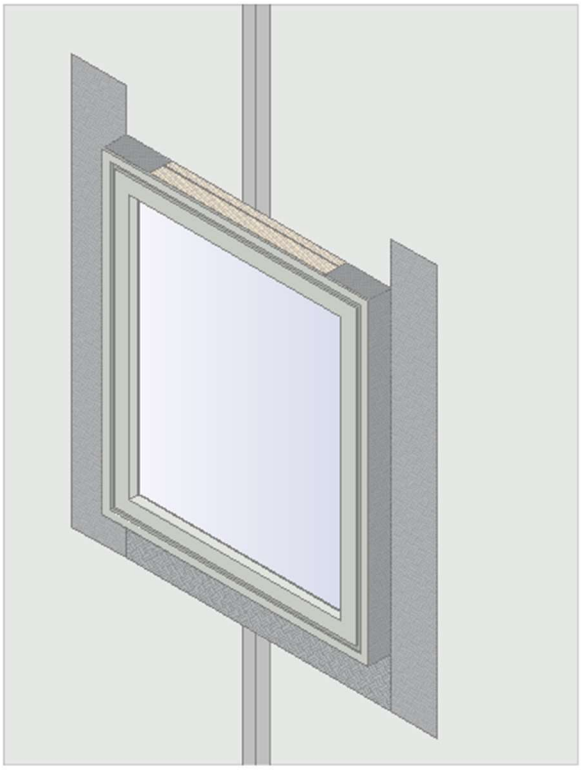

Figure 11

- All bonds should now be firmly consolidated with a seam roller (Figure 10).
- Repeat the procedure for the other jamb (Figure 11).

Step 7:

Finally install the membrane to the window head.

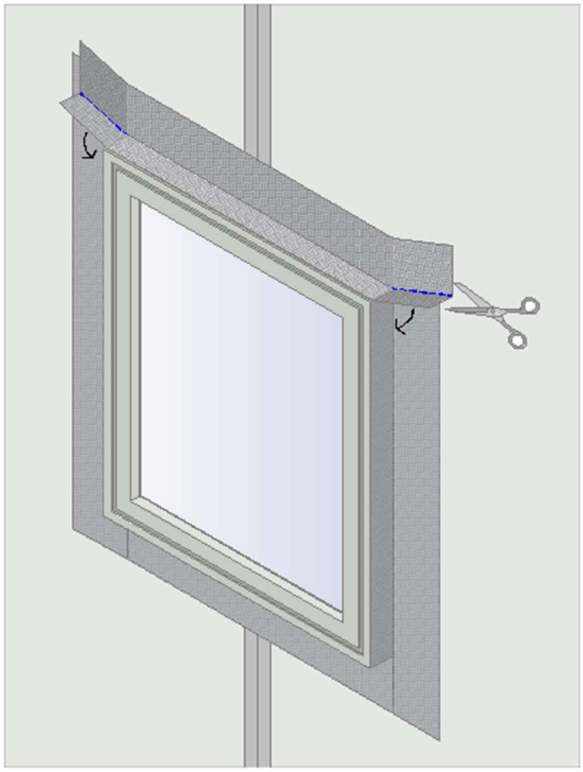

Figure 12

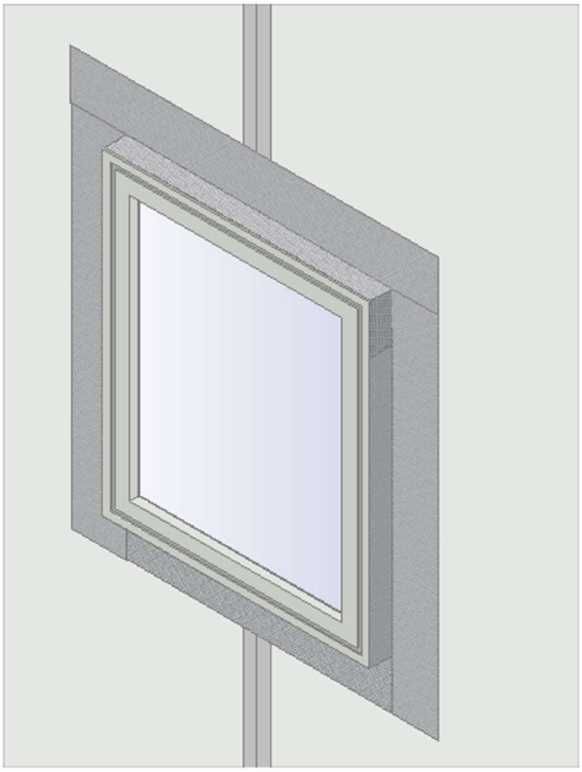

Figure 13

- Measure the length of membrane required plus 150 mm excess at each end as previously described for the sill application and determine correct positioning of the membrane.
- Peel back the release liner on one long edge by up to 50 mm and offer up the membrane and smooth on to the frame in a straight line, gently pressing the membrane into the correct position as previously described.
- Once located and bonded, the rest of the liner should continue to be peeled at the same edge, then the membrane carefully smoothed on to the remainder of the frame then pressed upwards on to the face of the sheathing board, ensuring there are no wrinkles in the membrane and that a tight 90 degree fold between frame and board is achieved.
- Cut the un-bonded sections of membrane at each end of the window frame and fold around the head and sill (figure 12). The flap can be cut down to a minimum of 100 mm if required.
- All bonds should now be firmly consolidated with a seam roller.
- When all four sides are complete the membrane should resemble a picture frame around the perimeter (Figure 13).

Step 8:

Check for small holes or omissions on the back and front projection where the membrane crosses at the corners and if there are any present, they will need to be sealed to ensure continuity of the membrane seal.

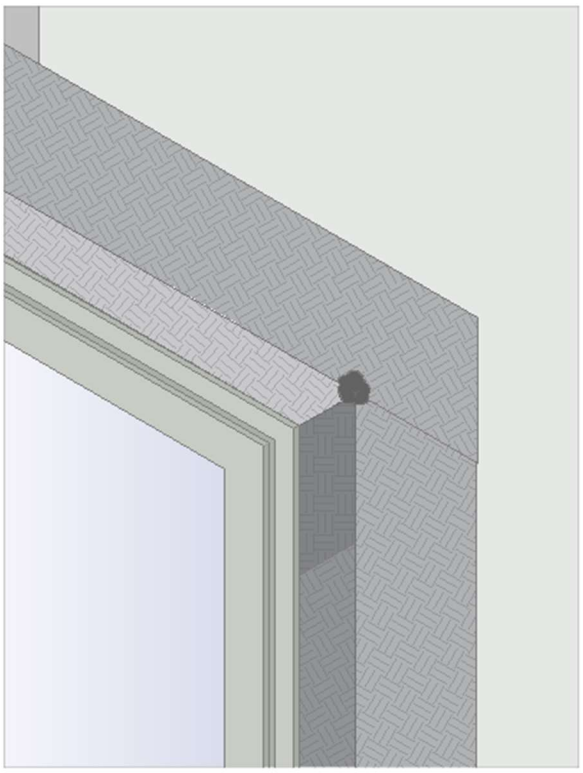

Figure 14

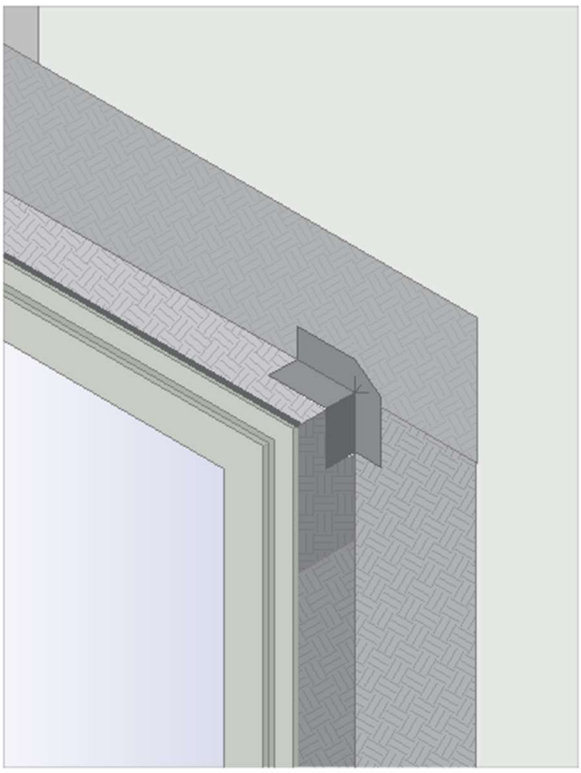

Figure 15

- ME020 FR Window & Door Sealing Membrane HD Self-Adhesive can be sealed with a small neat dab or bead of illbruck SP025 Fire Membrane Adhesive as shown in Figure 14.

- ME480 & ME481 Butyl Facade Sealing Tapes can be sealed using small patches of the tape as shown in Figure 15.

Your application is now complete.

Support

Here at Tremco CPG UK Ltd, we have technical experts and field support teams who can help you – from specification to application, we're on hand.

If you're looking for more information about fire rated membranes, or how to pick the right membrane for your application, please contact our team: **hello@tremcocpg.com.**

Tremco CPG UK Limited,
Hindley Green, Wigan WN2 4HT
T. +44 (0) 1942 251 400
hello@tremcocpg.com
www.tremcocpg.eu

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