

MasterSeal® AWB Application Guidelines

For flashing rough openings on concrete and masonry

OVERVIEW

MasterSeal AWB products can be used to create a seamless air/water-resistive barrier with integrated flexible flashings on most cementitious substrates. This bulletin outlines approved methods for application of MasterSeal AWB, and a choice of four methods of flashing rough openings. Methodologies described in this bulletin can be used to apply MasterSeal AWB 660/MasterSeal AWB 665/MasterSeal AWB 660 I to concrete masonry units (CMU), precast concrete and tilt-up concrete substrates. This bulletin describes flashing window rough openings; other rough openings, such as doors, vents and scuppers, can be treated using a similar approach.

PRE-APPLICATION INSPECTION

Examine surfaces to receive MasterSeal AWB and verify that substrate and adjacent materials are clean, dry, sound, and free of release agents, paint or other residue. Verify that masonry joints are struck flush and completely filled with mortar. Ensure that window returns are smooth and clean. Report unsatisfactory conditions to the General Contractor. Application of MasterSeal AWB shall not proceed until unsatisfactory conditions have been corrected.

ROUGH/POROUS SURFACES

In some cases it may be beneficial to address the smoothness of concrete or CMU surfaces prior to application of MasterSeal AWB 660 or MasterSeal AWB 665 or MasterSeal AWB 660 I. Where appropriate, apply a coat of MasterSeal AWB 600 FL. MasterSeal AWB 600 FL is a premium block filler designed for use under MasterSeal AWB air barrier systems.

FLASHING WINDOW OPENINGS WITH NO WOOD BUCKS

Cementitious window openings that are smooth and continuous, with no holes, gaps, voids or wood bucks can be flashed with MasterSeal AWB 660 or MasterSeal AWB 665 or MasterSeal AWB 660 I. If the sill, head or jamb are too porous to allow efficient installation of a continuous MasterSeal AWB membrane, apply MasterSeal AWB 600 FL into the returns to create a smooth surface. Allow MasterSeal AWB 600 FL to cure before applying MasterSeal AWB 660, MasterSeal AWB 665 or MasterSeal AWB 660 I.

When using spray equipment, roller or brush, apply sufficient MasterSeal AWB to the window opening to create a continuous membrane. For MasterSeal AWB 660 or MasterSeal AWB 665, apply minimum 20-mils wet film thickness at rough openings. MasterSeal AWB 660 I shall be applied to a minimum 26-mils wet film thickness.

MasterSeal AWB is typically applied to concrete substrates in two coats. Using a two-coat application makes it easier to obtain a void and pinhole-free application. If voids or pinholes do occur, they must be repaired by applying additional MasterSeal AWB 660/MasterSeal AWB 665/MasterSeal AWB 660 I. When MasterSeal AWB 600 FL is used, a single coat of MasterSeal AWB 660/MasterSeal AWB 665/MasterSeal AWB 660 I at recommended thickness is acceptable. Note: See last page for additional applicator notes and images.

FLASHING WINDOW OPENINGS WITH WOOD BUCKS

Rough openings with wood bucks can be flashed with MasterSeal AWB 900 Liquid Flashing Membrane, MasterSeal AWB 971 FIB saturated with MasterSeal AWB 660/MasterSeal AWB 665/MasterSeal AWB 660 I, or MasterSeal AWB 970 FIB. Each method of flashing rough openings has unique advantages.

MasterSeal AWB 900 Liquid Flashing Membrane

Advantages: Complex geometries created by recessed (See Figures 1-4) or protruding (See Figures 5-8) window bucks and large fastener heads can be quickly flashed with MasterSeal AWB 900.

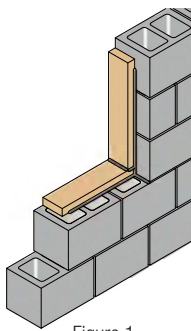


Figure 1

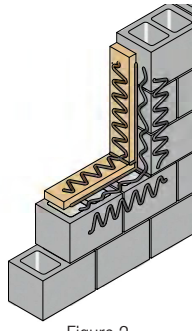


Figure 2

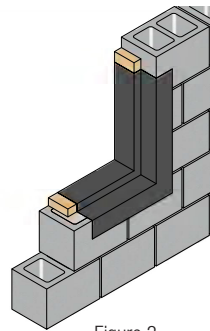


Figure 3

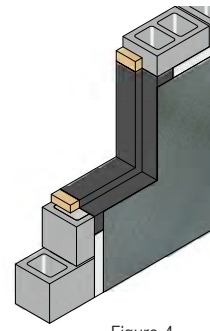


Figure 4

1. Fill gaps greater than 1/2" width with MasterSeal AWB 900, MasterSeal NP 100 or spray polyurethane foam.
2. Apply a bead of MasterSeal AWB 900 to each corner of the rough opening, between wood bucks and masonry and between wood bucks. (See Figures 1 & 5).
3. Apply a thick bead of MasterSeal AWB 900 in a zigzag pattern to the rough opening and onto the exterior wall. (See Figures 2 & 6).
4. Spread MasterSeal AWB 900 evenly, creating a continuous, void- and

- pinhole-free flashing membrane with a thickness of 12-30 mils. Extend the flashing membrane throughout the rough opening and minimum 4 inches onto the face of the exterior wall. (See Figures 3 & 7).
5. Allow MasterSeal AWB 900 to skin before applying MasterSeal AWB to the wall. Lap MasterSeal AWB a minimum of 2 inches onto MasterSeal AWB 900, creating a continuous, monolithic air/water-resistive barrier. (See Figures 4 & 8).
6. Allow MasterSeal AWB 900 to cure before installing windows.

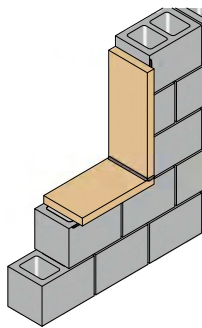


Figure 5

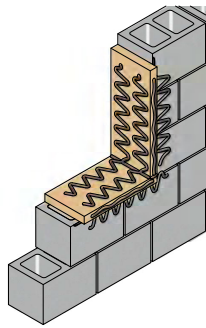


Figure 6

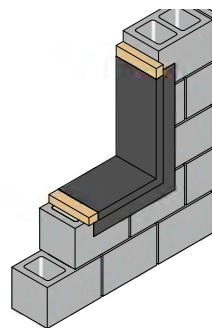


Figure 7

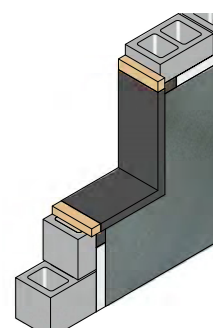


Figure 8

MasterSeal AWB 971 FIB saturated with MasterSeal AWB 600/MasterSeal AWB 665/MasterSeal AWB 660 I

Advantages: Fast and economical way to create a flexible flashing system on many common rough opening configurations.

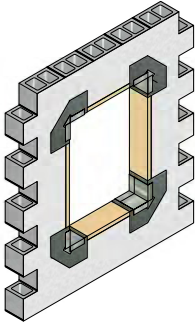


Figure 9

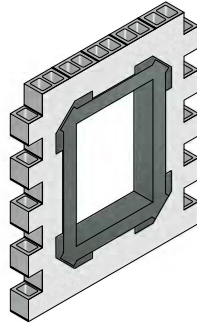


Figure 10

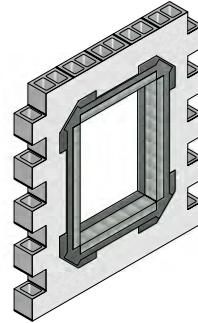


Figure 11

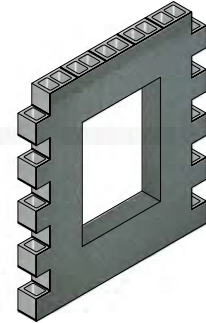


Figure 12

1. Fill gaps between wood bucks and CMU greater than 1/2 inch with MasterSeal NP 150 sealant or spray polyurethane foam.
2. Apply a generous receiving coat of well-mixed MasterSeal AWB 660/MasterSeal AWB 665/MasterSeal AWB 660 I to the window corners, fully saturating the entire corner area.
3. Remove a MasterSeal AWB 975 FIB from the dispenser package.
4. Place the MasterSeal AWB 975 FIB into the wet MasterSeal AWB 660/MasterSeal AWB 665/MasterSeal AWB 660 I. (See Figure 9).
5. Use a brush or roller loaded with MasterSeal AWB 660/MasterSeal AWB 665/MasterSeal AWB 660 I to completely saturate and embed the MasterSeal AWB 975 FIB, ensuring that the MasterSeal AWB 975 FIB is fully embedded and free of fishmouths and voids.
6. Repeat steps 2-5 on the other three corners.
7. Apply a generous receiving coat of well-mixed MasterSeal AWB 660/MasterSeal AWB 665/MasterSeal AWB 660 I to the sill. (See Figure 10).
8. Cut 9" MasterSeal AWB 971 FIB to the desired length. Allow minimum 2 inches of overlap with previously embedded MasterSeal AWB 975 FIB.
9. To simplify application, MasterSeal AWB 971 FIB can be creased lengthwise so that one side is the same length as the depth of the window. Gently rub the MasterSeal AWB 971 FIB on a scaffold or other hard, smooth surface to crease the MasterSeal AWB 971 FIB.
10. Place MasterSeal AWB 971 FIB into wet MasterSeal AWB 660/MasterSeal AWB 665/MasterSeal AWB 660 I so that the crease runs along the outside edge of the sill and MasterSeal AWB 971 FIB extends to the full depth of the rough opening. (See Figure 11).
11. Using a roller loaded with MasterSeal AWB 660/MasterSeal AWB 665/MasterSeal AWB 660 I, apply additional MasterSeal AWB 660/MasterSeal AWB 665/MasterSeal AWB 660 I to the 9" MasterSeal AWB 971 FIB, fully embedding the fabric. Roll from the center outward to prevent MasterSeal AWB 971 FIB from spooling onto the roller. Ensure that MasterSeal AWB 971 FIB is fully embedded, with no fishmouths, voids, pinholes or dry areas.
12. Repeat steps 7 – 11 on the head and jamb.
13. Apply a second coat of MasterSeal AWB 660/MasterSeal AWB 665/MasterSeal AWB 660 I to window flashing when MasterSeal AWB is applied to the main body of the wall. (See Figure 12). Note: MasterSeal AWB 971 FIB saturated with MasterSeal AWB forms a continuous membrane that can span the transition between CMU/ concrete and wood bucks.

Limitations: Minimum 2 inches of MasterSeal AWB 971 FIB saturated with MasterSeal AWB must be fully and continuously adhered to the substrate on all sides of areas where it is not continuously bonded to the substrate.

MasterSeal AWB 970 FIB and MasterSeal AWB 975 FIB

Advantages: Provides the benefits of self-adhering membranes while creating a seamless, monolithic tie-in to the air/water-resistant barrier. Avoids material compatibility issues commonly associated with other self-adhesive membranes. Use of MasterSeal AWB 975 FIB eliminates challenges of applying self-adhesive membranes into rough opening corners.

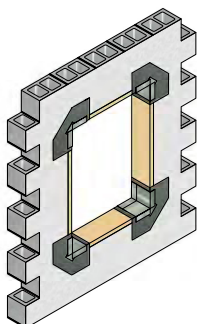


Figure 13

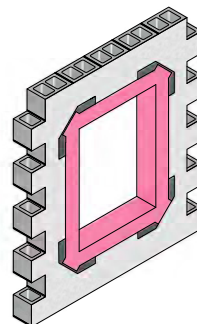


Figure 14

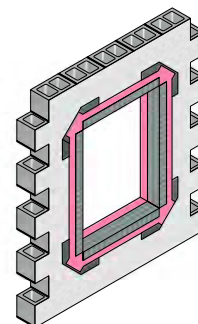


Figure 15

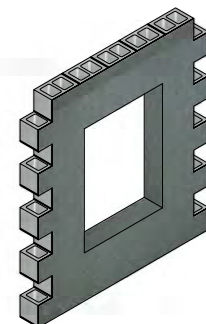


Figure 16

Apply MasterSeal AWB 975 FIB as described in Steps 2-5 from previous page. Allow the MasterSeal AWB 660/MasterSeal AWB 665/MasterSeal AWB 660 I saturated MasterSeal AWB 975 FIB to dry.

1. Apply MasterSeal AWB 950 P to the head, sill and jambs, including the MasterSeal AWB 975 FIB, covering all areas that will subsequently receive MasterSeal AWB 970 FIB. (See Figure 14).
2. Allow MasterSeal AWB 950 P to become tacky. Reapply MasterSeal AWB 950 P if time or contamination causes MasterSeal AWB 950 P to lose its tackiness.
3. Cut a length of 9" MasterSeal AWB 970 FIB that extends to the full length of the sill, allowing a minimum 5" overlap onto embedded MasterSeal AWB 975 FIB.
4. Remove half of the release paper lengthwise and fold it, exposing half of the adhesive. Stick one corner to the inside edge of the sill, and then attach the MasterSeal AWB 970 FIB across the top of the sill, ensuring that the MasterSeal AWB 970 FIB covers the entire sill. Do not overlap sections of MasterSeal AWB 970 FIB onto each other at window corners.
5. Remove the release paper. Starting from the center of the sill, fold the MasterSeal AWB 970 FIB down onto the sheathing, fully adhering the MasterSeal AWB 970 FIB to the sheathing.
6. Use a hard roller to firmly post-roll the MasterSeal AWB 970 FIB, compacting it onto the sill and sheathing. Ensure that the MasterSeal AWB 970 FIB is free of fishmouths.
7. Repeat steps 3 – 6 on the head and jambs. (See Figure 15).
8. Saturate MasterSeal AWB 970 FIB with MasterSeal AWB 660/MasterSeal AWB 665/MasterSeal AWB 660 I. This can be done when applying MasterSeal AWB 660/MasterSeal AWB 665/MasterSeal AWB 660 I to the main body of the wall. Ensure that no pink coloration from the previous application of MasterSeal AWB 950 P is visible – the window opening shall be entirely covered with MasterSeal AWB 660/MasterSeal AWB 665/MasterSeal AWB 660 I. (See Figure 16).

Applicator Notes

Note that new ¾" nap roller pads must be pre-moistened before use. Dip new rollers in clean water and spin out excess water. This is only needed the first time the roller is used.

MasterSeal AWB Inspection Guidelines for Cementitious Substrates

Six aspects of MasterSeal AWB application should be considered during inspection.

1. **Complete coverage.** MasterSeal AWB 660/MasterSeal AWB 665/MasterSeal AWB 660 I and/or MasterSeal AWB 900 shall form a continuous, pinhole-free membrane on all concrete masonry, window rough openings, expansion joints, penetrations and transitions to other parts of the air barrier system. If MasterSeal AWB has been used to control surface roughness/porosity, it shall not be visible through the subsequently applied MasterSeal AWB 660/MasterSeal AWB 665/MasterSeal AWB 660 I.
2. **Reinforcement shall be present where required.** Presence of MasterSeal AWB 971 FIB and MasterSeal AWB 970 FIB can be visually confirmed.
3. **MasterSeal AWB 971 FIB and MasterSeal AWB 970 FIB shall be fully saturated with MasterSeal AWB 660/MasterSeal AWB 665/MasterSeal AWB 660 I and free from fishmouths.** This can be visually confirmed. If MasterSeal AWB 971 FIB and MasterSeal AWB 970 FIB are fully saturated with MasterSeal AWB, there is no need to confirm thickness in these locations.
4. **Application thickness.** MasterSeal AWB 665 is applied at 24 mils on cementitious substrates. MasterSeal AWB 660 I is applied at minimum 26-mils wet film thickness (19 mils when dry). MasterSeal AWB 900 must be installed at minimum 12-30 mils thickness (wet film thickness = dry film thickness).
5. **Areas that receive MasterSeal AWB 970 FIB must be primed beforehand with MasterSeal AWB 950 P.** MasterSeal AWB 970 FIB must be firmly post-rolled with a hard roller.
6. **MasterSeal AWB shall be kept from freezing prior to application.** Store MasterSeal AWB at no less than 40 °F. If MasterSeal AWB has been applied at temperatures below 40 °F, verify that one quart of MasterSeal AWB 960 AC has been thoroughly mixed into each pail of MasterSeal AWB. MasterSeal AWB mixed with MasterSeal AWB 960 AC shall not be exposed to temperatures below 25 °F until it has fully dried.

HEALTH , SAFETY AND ENVIRONMENTAL

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