



AIR & VAPOR BARRIER

How to Apply Peel and Stick Detail Flashings in Fluid-Applied Air/Water Resistive Barrier Systems

Introduction

Fluid-Applied Air/Water Resistive Barrier Systems or “liquid WRBs,” have become a popular choice for use in commercial exterior wall construction. One reason is that building codes require the air barrier to be durable and continuous over the entire building envelope. Liquid WRBs provide durability and continuity because they fully cover substrates. Detail materials to cover joints, holes and transitions are essential components of liquid WRBs. These detail materials are either sealed at the edges or fully encapsulated by the liquid membrane to provide a monolithic application. Many detail materials are used in liquid WRBs, including:

- Embedded reinforcement (fabric or mesh)
- Joint sealants
- Liquid flashings
- Termination mastic
- Elastomeric flashings
- Peel and stick flashings

This guide covers peel and stick flashings that have a rubberized asphalt adhesive laminated to a poly or poly/foil composite facer.



Durable and Continuous Application of a Liquid WRB System



Rubberized Asphalt Peel & Stick Flashing

When to apply peel and stick flashing BEFORE liquid WRB application

When installing peel and stick flashings in liquid WRB systems, follow these guidelines:

1. Verify adhesion and compatibility of the components that need to bond to one another. Where possible, source the peel and stick flashing, the contact adhesive, the termination mastic and the liquid WRB from a single manufacturer. Verify from the manufacturer how the components can be layered.
2. Plan to apply the peel and stick flashings BEFORE applying the liquid WRB. This is highly recommended versus installing the liquid WRB before the peel and stick flashings. Here's why:
 - a. Faster sequence – Peel and stick flashings can be covered with liquid WRB right away. The entire installation can be accomplished in one trip up the wall.
 - b. Adhesion – Peel and stick flashings have better, stronger adhesion to the substrate rather than over the liquid WRB.
 - c. Compatibility – Some liquid WRBs are not chemically compatible with the asphalt adhesive side of peel and stick flashings. The incompatibility causes weak adhesion, de-lamination and material degradation.
 - d. Durability and continuity – The terminations of peel and stick flashings are encapsulated with two layers: termination mastic and liquid WRB.



Liquid WRB Applied over Peel & Stick Flashing

SCIENCE. SERVICE. SOLUTIONS.

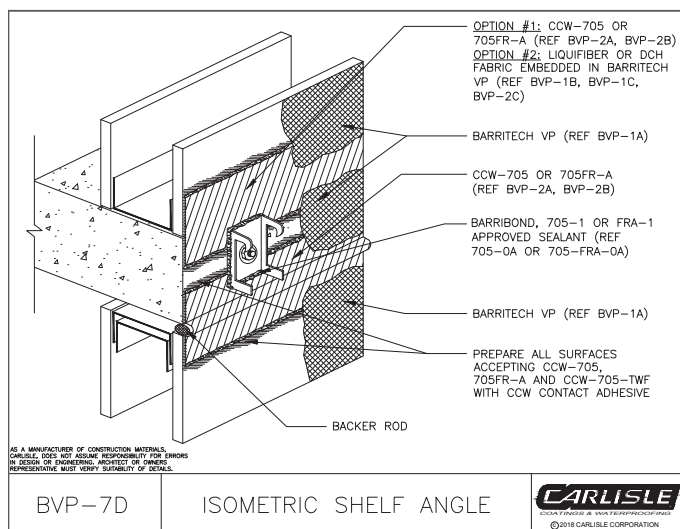


Carlisle Coatings & Waterproofing

900 Hensley Lane | Wylie, TX 75098 | 800.527.7092 | www.carlisleccw.com



AIR & VAPOR BARRIER



Detail – Peel & Stick Flashing Installed before Liquid WRB

3. Verify suitability of substrates and prepare the area that will accept the peel and stick flashings with an approved contact adhesive. Follow manufacturer's instructions to provide proper coverage and drying time. Apply the contact adhesive in a footprint that is at least one inch beyond the peel and stick flashing.
4. Install peel and stick flashings over contact adhesive. Lap pieces of flashing at least 2 inches, or more, if required by manufacturer. Note that through-wall flashings (TWF) generally require a 6-inch overlap. Shingle lap pieces of flashing, working from the bottom up. Press flashing firmly in place with a roller.
5. Apply a ribbon of termination mastic over the peel and stick flashing terminations. Ideally, provide a 1-inch width by 40-mil thick ribbon over the flashing termination. Use a notched trowel that will not "bottom out" the blade over the flashing termination.
6. The termination mastic is important for these reasons:
 - a. Seals the peel and stick flashing termination to the substrate.
 - b. Closes fish mouths and prevents under-cutting by moisture during exposure.
 - c. Ties the liquid WRB strongly to the peel and stick flashing.
 - d. Mastic bonds well to flashing, liquid WRB bonds well to mastic.



Peel & Stick Flashing Application in a Liquid WRB System on a Project



Peel & Stick Flashings with Termination Mastic at Edges – Ready for Liquid WRB



Peel & Stick Flashing Installed at Junction of Dissimilar Substrates. Substrates Prepped with Contact Adhesive (red)



DON'T DO THIS...Peel & Stick Flashing Curl-Up Due to Missing Termination Mastic

SCIENCE. SERVICE. SOLUTIONS.



Carlisle Coatings & Waterproofing

900 Hensley Lane | Wylie, TX 75098 | 800.527.7092 | www.carlisleccw.com



AIR & VAPOR BARRIER

7. Spray- or roller-apply the liquid WRB onto the opaque wall surfaces, lapping over the termination mastic. Consult manufacturer for curing requirements of the termination mastic before covering with liquid WRB. Liquid WRB shall cover the termination mastic and should lap about 2 inches onto the peel and stick flashing.

When to apply peel and stick flashing AFTER liquid WRB application

There are some situations when peel and stick flashing must be applied after the liquid WRB. This happens most often with window flashings and TWF, which are typically installed after liquid WRB installation. Because different trades install masonry and windows, the TWF and window flashings may not be from the same manufacturer as the WRB. Design professionals should consult with manufacturers for compatibility and adhesion issues. Other practical concerns when applying peel and stick flashings over liquid WRBs include:

- Cure time of the liquid WRB required before installing peel and stick flashings. Residual water or solvent in the liquid WRB can cause the peel and stick flashing to detach or soften.
- Adhesion and compatibility of the peel and stick flashing and contact adhesive with liquid WRB.
- Water resistance of the liquid WRB. Many liquid WRBs are not as water resistant as peel and stick flashings. In high moisture exposure areas, the liquid WRB can soften, forming a weak base for the peel and stick flashing.



Peel & Stick Flashing applied after liquid WRB (Through Wall Flashing)

How to do it (if you must)

- Verify adhesion and compatibility of the components bonding to one another. Where possible, source the peel and stick flashing, the contact adhesive, the termination mastic and the liquid WRB from a single manufacturer. Contact the manufacturer to learn how the components can be layered.
- If adhesion and compatibility of the peel and stick flashing over the liquid WRB is unacceptable, consider using alternative materials to peel and stick flashing. Alternative materials to peel and stick flashing include reinforcement embedded in the same liquid WRB, liquid flashing or transition sheet (metal, rubber or silicone) fastened/bonded in place. If adhesion and compatibility of the peel and stick flashing over the liquid WRB is acceptable, follow steps 3 through 5.
- Install peel and stick flashings over contact adhesive. Lap pieces of flashing at least 2 inches, or more if required by manufacturer. Note that TWF generally requires a 6-inch overlap. Shingle lap pieces of flashing, working from the bottom up. Press flashing firmly in place with a roller.
- Apply a ribbon of termination mastic over the peel and stick flashing terminations. Ideally, provide a 1-inch width by 40-mil thick ribbon over the flashing termination. Use a notched trowel so as not to “bottom-out” the blade over the flashing termination.



Peel and stick Flashing installed after Liquid WRB at Termination

Conclusion

Peel and stick flashings are excellent materials for covering critical details in liquid WRB systems. Proper integration of the materials is essential for achieving a durable and continuous air and water resistive barrier.

SCIENCE. SERVICE. SOLUTIONS.



Carlisle Coatings & Waterproofing

900 Hensley Lane | Wylie, TX 75098 | 800.527.7092 | www.carlislecw.com