

Aluma Flash™ PLUS Membrane Properties

PROPERTY	TEST METHODS	RESULTS
Thickness - mils (mm)		40
Water Vapor Transmission US perms (g/Pa-s-m ²)	ASTM E 96 B	0.00 Perms
Peel Adhesion to Primed - lb/in.width (N/mm)	ASTM D 1000	15.0
Tensile Strength Film - PSI (N/mm ²)	ASTM D 882 (Method A)	5000
Elongation - Ultimate Failure of Rubberized Asphalt - %	ASTM D 412 (Modified Die C)	> 800%
Low Temperature Pliability @ -15 deg F (-26 deg C)	ASTM D 146 (Modified)	no effect
Service Temperature		-40° F - 160° F (-40°C - 70°C)
Air Permeance - Concrete	ASTM E 2178	0.0005 cfm/sf
Air Permeance - Densglass	ASTM E 2178	0.0005 cfm/sf
Nail Sealability	ASTM D 1970	Pass
Peel Adhesion - Concrete	ASTM D 903	9.51 lbs/in-width
Peel Adhesion - Densglass	ASTM D 903	9.51 lbs/in-width
Lap Peel Adhesion	ASTM D 1876	4 lbs/in-width
Evaluation of Fire Propagation of Building Materials	NFPA 285	Compliant*

*related to specific assemblies



Aluma Flash™ PLUS (40 mil) packaging

ROLL SIZES	ROLLS/BX	SF/BOX	LBS/BOX	BOXES/PALLET
6" x 75'	6	225	68	36
9" x 75'	4	225	68	36
12" x 75'	3	225	68	36
36" x 33.3'	1	100	31	42

Blue Barrier™ Joint Filler 2200 packaging

UNIT SIZE	UNITS/CASE	LBS/CASE	UNITS/PALLET
10.1 oz.	12 tubes/case	12	42
20.0 oz.	12 sausages/case	24	45

Polybond Clear Liquid Adhesive packaging

UNIT SIZE	UNITS/CASE	SF/UNIT	LBS/UNIT	UNITS/PALLET
1 Gallon	4	250-300	40	54
5 Gallon	1	1250-1500	50	36

Home Stretch WB Liquid Adhesive packaging

UNIT SIZE	UNITS/CASE	SF/UNIT	LBS/UNIT	UNITS/PALLET
1 Gallon	4	350-400	40	48
5 Gallon	1	1750-2000	45	36

LIMITATIONS: Make sure caulks, and sealants which might come into contact with adhesive portion of rubberized asphalt do not contain plasticizers or solvents. This includes most polyurethane and silicone caulks. Cover membrane with choice of siding and trim within 2 years of installation. Aluma Flash™ PLUS should not be applied to flexible PVC film or surfaces.

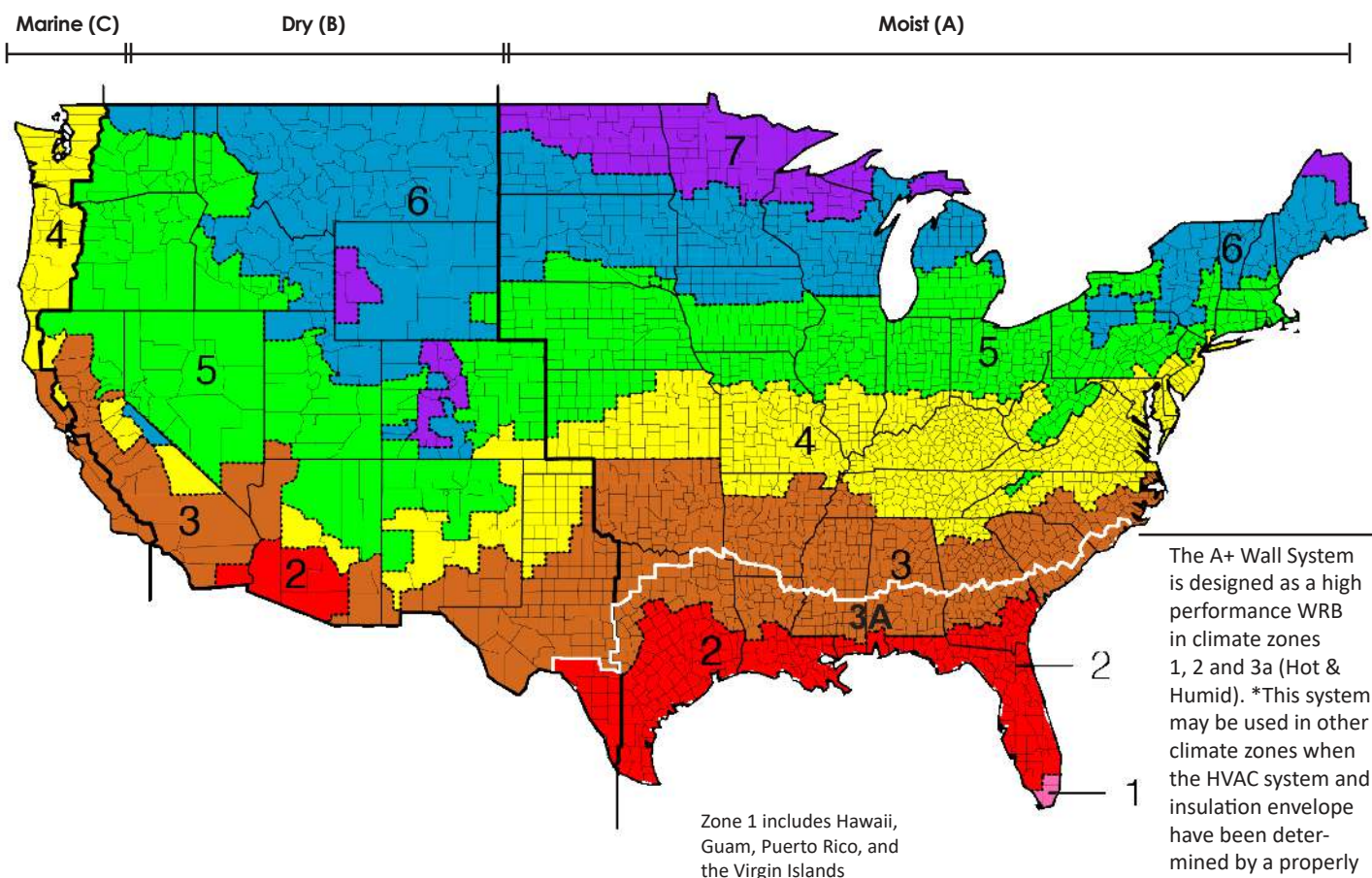
Installation of the A+ Wall System beyond Climate Zones 1, 2 and 3a should only be used with a properly designed HVAC System and Insulation envelope that have been determined by a properly conducted dew point analysis.

LIMITED WARRANTY: We, the manufacturer, warrant only that this product is free of defects, since many factors which affect the results obtained from this product are beyond our control; such as weather, workmanship, equipment utilized and prior condition of the substrate. We will replace, at no charge, proven defective product within twelve (12) months of purchase, provided it has been applied in accordance within our written directions for uses we recommended as suitable for this product. Proof of purchase must be provided.

MINIMUM STORAGE REQUIREMENTS: Membrane and accessories should be unloaded and stored carefully. Protect cartons and containers from weather, sparks, flames, excessive heat, cold and lack of ventilation. DO NOT double stack pallets. Store cartons on pallets and cover to prevent water damage. For best results, store membrane above 50°F (10°C) until just prior to application.

And the Building Science Says:

Keeping air and water (both vapor and fluid) away from and out of residential structures is the key factor to the longevity of buildings and the health and safety of their occupants. While there are unique climate zones covering the United States, climate Zones 1, 2 and 3A (Hot & Humid) historically receive the highest rainfall totals of anywhere in the nation. Builders in these zones are challenged in keeping both bulk water and moisture laden air out of their buildings. Initially developed and tested in Austin, TX Poly Wall's A+ Wall System creates an impermeable Weather Resistant Barrier envelope that denies bulk water or vapor access to the wall cavity. With no water and lower humidity in the wall, potential for condensation, mold and rot are virtually eliminated. Extensive WUFI analysis modeling structures in Austin, TX, Houston, TX, Miami, FL and Birmingham, AL over a 10 year cycle bare these results out. The test cases: 1) no evidence of long-term moisture accumulation of individual components, 2) Predicted Mold Index below 3 (lowest visible) based of the latest VVT(Viitanen) model and 3) no evidence of long-term moisture accumulation in the assembly. Air is stopped, moisture is stopped creating a longer lasting, healthier and a more energy efficient building structure. A win-win for builders and owners of this generation and the next!



Zone 1 includes Hawaii, Guam, Puerto Rico, and the Virgin Islands

The A+ Wall System is designed as a high performance WRB in climate zones 1, 2 and 3a (Hot & Humid). *This system may be used in other climate zones when the HVAC system and insulation envelope have been determined by a properly conducted dew point analysis

For more information contact Poly Wall:
888-976-POLY (7659)
info@poly-wall.com



Aluma Flash PLUS A+ Wall System

Self-Adhering Air and Weather Resistant Barrier with Extended UV Protection

for Construction Assemblies in Climate Zones 1, 2, and 3a*

INSTALLATION INSTRUCTIONS

Building Envelope Protection Membrane



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BASIC USES:

The Poly Wall A+ Wall System with Aluma Flash Plus Membrane should be consider in higher exposure homes that require a more robust air barrier / WRB strategy. Aluma Flash Plus is a 40 mil thick, self-adhering modified asphalt membrane designed as a non-permeable Air & Weather Resistant Barrier for residential applications in climate zones 1, 2 and 3a (see page 6.)

The protective layer of aluminum provides a better UV resistance (24 months) for exposure time before needing to be covered. Not intended to be used as a roofing material.

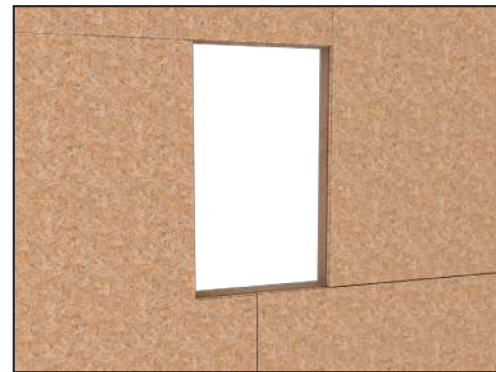
ACCESSORIES

- Aluma Flash PLUS Flashing in 6", 9", 12" x 75' rolls
- Blue Barrier™ Joint Filler 2200 available in either a 10.1 oz caulk or 20 oz sausage cartridge
- Polybond Clear Liquid Adhesive or Home Stretch WB Liquid Adhesive available in 1-or 5-gallon formats

TOOLS NEEDED

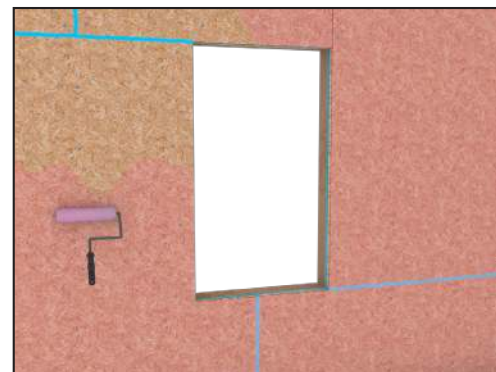
- Caulk or sausage gun
- Plastic/metal trowel
- Utility Knife or scissors
- Hand or J-roller

THE FOLLOWING STEPS ILLUSTRATE THE PROPER INSTALLATION FOR FLANGED WINDOWS



STEP 1

As wall surface preparation; provide a clean, dry, frost-free substrate at minimum 40 degrees Fahrenheit and rising prior to installing Poly Wall Aluma Flash PLUS.



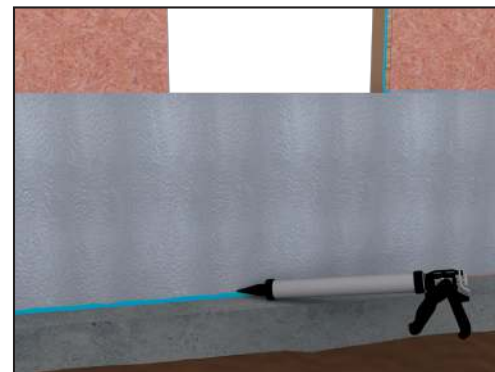
STEP 2

Apply and tool Poly Wall Blue Barrier™ Joint Filler 2200 sealant over and along board joints up to 3/4" wide; as well as any surface depressions, gaps, and voids in the wall or rough opening; to create a smooth, flush, continuous, and fully-supported substrate. For board joints and gaps larger than 3/4", provide a sized backer rod in the joint, then apply and tool Poly Wall Blue Barrier™ Joint Filler 2200 sealant for a flush substrate.

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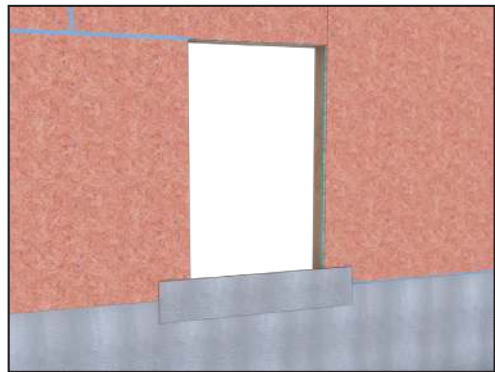
STEP 2A

Apply Poly Wall Home Stretch WB Liquid Adhesive (water-based) primer to substrates at a rate of 350 – 400 sf / gal, or use Poly Wall Polybond Clear Liquid Adhesive (solvent-based) applied at a rate of 250 – 300 sf / gal. Re-apply the liquid adhesive primer if stickiness (tack) has dissipated, or if membrane is not applied to adhesive in same day, prior to the next step. Follow these guidelines for all upcoming steps discussing the use of the liquid adhesive primer.



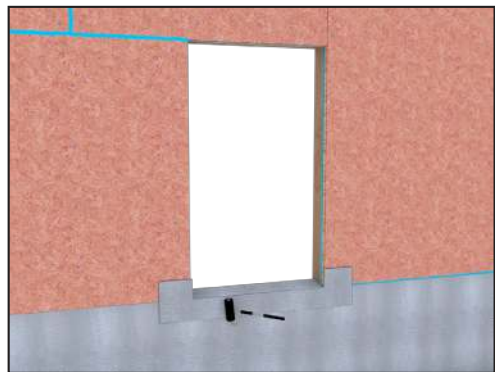
STEP 3

Beginning at the base of wall install the Poly Wall Aluma Flash PLUS membrane. The membrane can be installed either horizontally (as shown here) or vertically, providing there is the recommended minimum 2-1/2" side lap and minimum 4-inch end lap. Be sure to prime all membrane side and end laps too and shingle any horizontally-oriented field sheets in a manner to properly shed water. As the Aluma Flash PLUS Membrane field sheets are properly installed, use a hand roller to backroll each Aluma Flash PLUS Membrane sheet to provide proper adhesive bond. Align membrane horizontally along the face of the rough opening sill, as shown, for proper rough opening flashing overlay materials to be described in subsequent steps. A tooled 3/4" bead of Blue Barrier Joint Filler 2200 should be applied at the base of sheathing tying it to the top of the foundation. This instruction is designed for above-grade air barrier/WRB placement, so do not use for below-grade waterproofing applications. For bottom 2'-0" of above-grade wall, protect installed horizontal Aluma Flash PLUS membrane at brick ledge with a sacrificial piece of 15# felt as separation of materials to prevent "galvanic reaction" with subsequent wet cementitious mortar products used during brickwork.



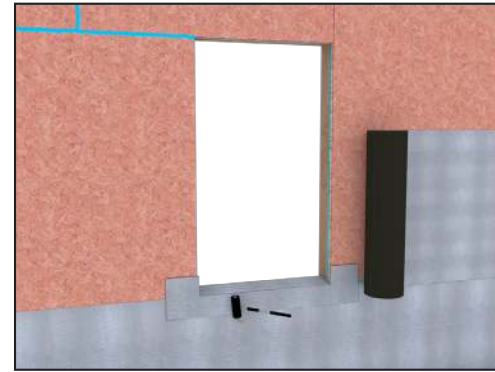
STEP 4

To install Poly Wall Aluma Flash Plus Membrane as sill flashing, measure and cut-to-fit one (1) new piece of Aluma Flash Plus flashing greater than 9 inches of the width of the rough opening sill, center the flashing across the wall face of the rough opening sill, remove the release liner, and install the flashing on the wall face of the rough opening sill prepared with Poly Wall Home Stretch WB Liquid Adhesive or prepared with Polybond Clear Liquid Adhesive. Once the flashing is properly installed, use a hand roller to backroll the Aluma Flash Plus sill flashing.



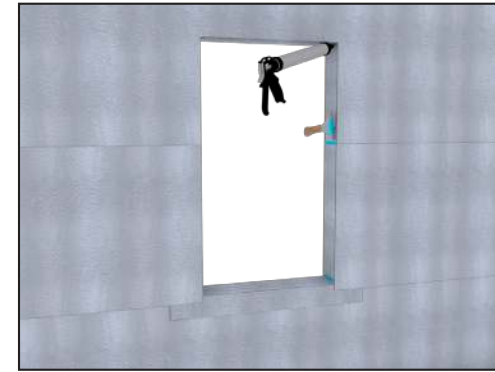
STEP 5

Provide relief cuts in the sill flashing to allow the Aluma Flash PLUS flashing membrane to fold down into the clean and dry rough opening sill prepared with Poly Wall Home Stretch WB Liquid Adhesive or prepared with Polybond Clear Liquid Adhesive. Once the flashing is properly installed, use a hand roller to backroll the entire Aluma Flash PLUS flashing across the wall face of the rough opening sill, as well as horizontally into the rough opening sill.



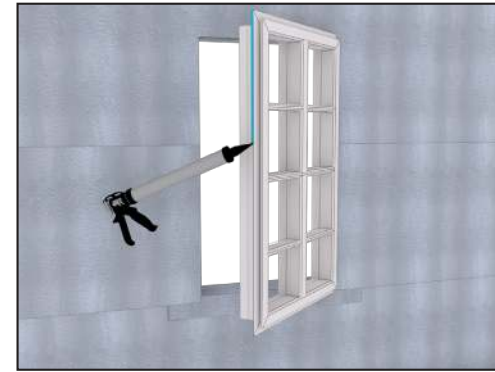
STEP 6

Continuing on the prepared wall, install the Aluma Flash PLUS membrane with 100% adhesion and complete coverage of the wall surface. The membrane can be installed either horizontally (as shown here) or vertically, providing there is the recommended minimum 2-1/2-inch side lap and minimum 4-inch end lap. Be sure to prime all membrane side laps and end laps too, and shingle any horizontally-oriented field sheets in a manner to properly shed water. As the Aluma Flash PLUS membrane field sheets are properly installed, use a hand roller to backroll each Aluma Flash PLUS membrane sheet.



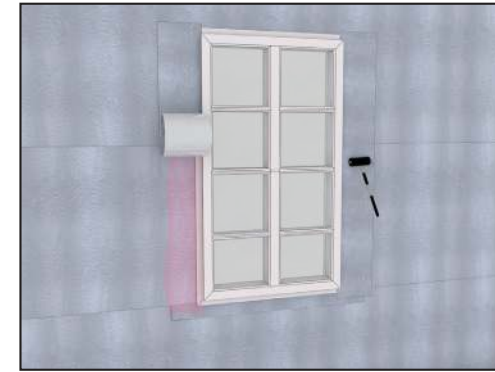
STEP 7

Install Poly Wall Aluma Flash Plus Membrane field sheets with complete coverage on the wall face and extending into clean and dry rough opening jambs prepared with Poly Wall Home Stretch WB Liquid Adhesive or prepared with Polybond Clear Liquid Adhesive. Once the membrane is properly installed, use a hand roller to backroll the entire Aluma Flash Plus Membrane in the rough opening jambs. Then seal all exposed membrane edges with a minimum 30-mil tooled application of Poly Wall Blue Barrier™ Joint Filler 2200 to provide a proper edge seal of the membrane's exposed asphalt compound.



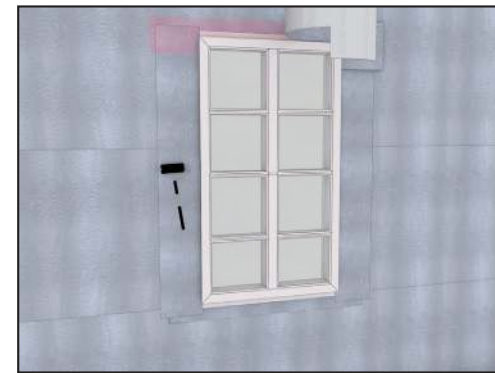
STEP 8

At time of window installation, provide window manufacturer's approved sealant installed along inside face of flange. If allowed by window manufacturer's instructions and warranty, the Poly Wall Blue Barrier Joint Filler 2200 sealant can be used (as shown here) in lieu of the other approved sealant(s). Poly Wall recommends leaving the window sill flange open, without sealant, to allow any trapped moisture that may build-up over time to properly drain. Set window into rough opening as plumb, level, and square, then secure per window manufacturer's instructions.



STEP 9

Measure and cut-to-fit two (2) new pieces of Aluma Flash Plus flashing (available in 6", 9" and 12" widths) to install along the window jamb flanges and overlap the installed membrane sill flashing. Prior to installing the (2) cut pieces over and along the window jamb flanges, prepare all surfaces with Poly Wall Home Stretch WB Liquid Adhesive or with Polybond Clear Liquid Adhesive Then center the flashing pieces across the rough opening jambs, remove the release liner, and install the flashing on the rough opening jambs. Once the flashings are properly installed, use a hand roller to backroll the Aluma Flash Plus flashing across the rough opening jambs.



STEP 10

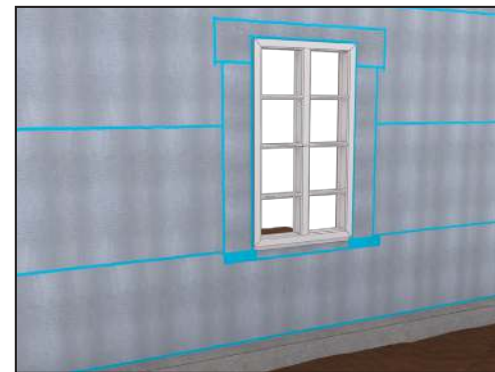
Measure and cut-to-fit one (1) piece of Aluma Flash PLUS flashing 9 inches longer than the width of the window head. Prior to installing the head flashing piece, prepare all surfaces with Poly Wall Home Stretch WB Liquid Adhesive or with Polybond Clear Liquid Adhesive Then center the flashing piece across the window head, remove the release liner, and install the flashing on the window head.

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STEP 11

Once the flashing is properly installed, use a hand roller to backroll the Aluma Flash PLUS flashing across the window head.



STEP 12

Seal all exposed Aluma Flash PLUS membrane edges and flashing edges with a minimum 30-mil tooled application of Poly Wall Blue Barrier™ Joint Filler 2200 to provide a proper edge seal of the membrane's exposed asphalt compound. Finished view of the installed window with Poly Wall Aluma Flash PLUS membrane. Completely cover all Aluma Flash PLUS membrane with choice of siding or trim within the designated maximum 2-year UV exposure limit.

For non-flanged window installation details, please contact Poly Wall via tech@poly-wall.com for information.