

Aqua Base 120 Bonding Adhesive



Overview

Aqua Base 120 is a unique, semi-pressure-sensitive, water-based bonding adhesive for EPDM, TPO, and FleeceBACK® membranes offering good peel strengths with low-VOCs and no strong odors. This product may be used as a one-sided, wet lay-in adhesive on horizontal surfaces with EPDM and TPO FleeceBACK membranes in either 100-, 105-, or 115-mil thicknesses. It can also be used as a two-sided contact adhesive with standard Sure-Seal EPDM, Sure-White EPDM and Sure-Weld TPO.

Features and Benefits

- » Low VOCs, only 4 g/L
- » Low or no odor
- » Can be sprayed or roller applied
- » Can be used for EPDM and TPO FleeceBACK and non-FleeceBACK EPDM and TPO membranes
- » Typical warranties are 10-, 15- or 20-year terms
- » 20-year warranties are available for all EPDM and TPO membranes over approved substrates

Coverage Rate

Coverage rate is 100–120 ft² (11.6 m²) of finished surface area per gallon when applied to an approved substrate for wet lay-in with FleeceBACK 100- or 115-mil membranes (standard gray fleece). The coverage rate is also 100–120 ft² of finished surface area per gallon when used as a contact adhesive and applied on both the substrate and standard membrane. Note: Aqua Base 120 will be applied at half the prescribed

thickness to both the substrate and membrane, netting 200–240 ft² of overall coverage. Coverage rates are average and may vary due to conditions such as insulation type or wall construction. Do not exceed the coverage rate listed above, as it will have a detrimental effect on the system performance. One 5-gallon pail should cover a maximum 6 square area of finished roof surface.

Application

1. The surface, on or against which the adhesive is to be applied, shall be clean, smooth, dry, and free of fins, sharp edges, loose and foreign materials, oil and grease. Depressions or step-offs greater than ¼" (6 mm) shall be feathered using epoxy, mortar or other approved patching material. All sharp projections should be removed by scraping, sweeping, blowing, vacuum cleaning, etc.
2. Aqua Base 120 Bonding Adhesive is approved for use on 20-year warranties over Polyisocyanurate (requires two-sided contact adhesive method), SecurShield, SecurShield HD, Securock, OSB, plywood, cellular lightweight over vented steel deck and structural concrete. The wet lay-in procedure is not acceptable over existing roof systems or decks with residual adhesive or asphalt. A porous substrate is required for Aqua Base to work properly.
3. Stir until settled material or phased liquid is redistributed and the adhesive is uniform in color.
4. Apply adhesive to the substrate in a uniform manner avoiding globs, puddles and uncoated areas. Avoid accumulation of adhesive between insulation joints. Do not exceed the published coverage rate.
5. Application methods:
 - a. Roller Application: Use a medium nap roller.
 - b. Mechanical Roller Application: Follow the manufacturer's safety and use procedures.
 - c. Mechanical Spray Application: Follow the manufacturer's safety and use procedures.
 - Tip sizes between .019"–.023" in a Graco 510 gun
 - Minimum fluid pressure of 2,500 psi is required for a fair pattern
 - Back rolling is recommended
 - Flush with water at the end of the day

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FleeceBACK Membrane (wet lay-in method): Coat the substrate with Aqua Base 120 Bonding Adhesive and roll FleeceBACK 100–115-mil membrane into the wet adhesive. Avoid heavy or thin application of adhesive. Immediately install the membrane while the adhesive is still wet (pink in color). If adhesive has turned yellow in color, recoat with additional adhesive. Care must be taken with the “barn door” method of sheet installation to avoid dry (yellow) adhesive. Lift the membrane in a few areas to ensure adhesive is transferring to the fleece. Roll with a 150-lb segmented weighted roller to achieve maximum contact. Pay particular attention to rolling the membrane along the insulation joints. All adhesive residue in the splice area must be removed. Cure rates are between 12–72 hours depending on porosity of substrate and weather conditions. Re-rolling within 24 hours may be necessary if the substrate is uneven or the sheet contains some fullness. Temporary weighting of the membrane may be necessary until the adhesive cures to address pronounced sheet fullness. Do not use the FleeceBACK AFX membranes for the wet lay-in application.

FleeceBACK Membrane (vertical walls two-sided contact method): Coat the fleece backing and allow the adhesive to completely dry. Test for dryness by pressing the back of a finger into the fleece to check that the adhesive is dry throughout the fleece layer. Once the adhesive on the fleece is dry, apply a standard coat of adhesive to the wall and a second coat to the fleece backing and allow drying. Adhesive will turn yellow when dry. Mate the membrane with the adhesive-coated wall, while avoiding wrinkles. Immediately broom the bonded portion of the sheet with a stiff-bristle push-broom or roll the membrane using a 3"-wide “J” roller (preferred) to achieve maximum contact. Please note the fleece will develop a dry top surface while still holding moisture in the fleece and does require complete drying prior to the mating of the membrane to the wall substrate. Installing the membrane while the adhesive is still wet will trap moisture and cause blisters or loose membrane.

Standard Membrane (two-sided contact method): Apply Aqua Base 120 Bonding Adhesive to the membrane and the substrate at the recommended rate. The adhesive must be allowed to dry completely. Aqua Base 120 will change from a pink color to a clear with yellow cast as the water evaporates, indicating it is ready to be mated together. The dried adhesive should remain tacky before assembly. Mate the membrane with the adhesive-coated substrate, while avoiding wrinkles. Immediately roll the bonded portion of the sheet with a 150-lb segmented weighted roller to achieve maximum contact. Pay particular attention to rolling the membrane along the insulation joints. The adhesive contains no solvents to react with the membrane, and therefore rolling the sheet is critical. Extended drying times can be expected in cool, overcast, humid, shaded or late day applications. The adhesive must be dry to avoid permanent blisters from trapped moisture. Coated areas exposed to moisture shall be allowed to dry and then recoated. All adhesive residues in the splice area must be removed.

Standard Membrane (vertical walls two-sided contact method): Let the wall flashing membrane relax and warm to minimize the natural tendency of the membrane to curl. Apply a medium to heavy coat of adhesive to the wall first and then a standard coat to the flashing membrane and allow thorough drying. Aqua Base 120 will change from a pink color to a clear with yellow cast as the water evaporates, indicating it is ready to be mated together. Not allowing the adhesive to dry completely will result in poor adhesion strength or blisters occurring over time. Mate the membrane with the adhesive-coated wall, while avoiding wrinkles. Immediately broom the bonded portion of the sheet with a stiff-bristle push-broom and roll the membrane, starting in the angle change and working the membrane up the wall, using a 3"-wide “J” roller (preferred) to achieve maximum contact. Roll up from the base evenly and work in small sections gaining good attachment at the lower portions before moving up to the top of the membrane. Temporary pinning or taping the top membrane edge to the wall may be necessary to prevent membrane curl back until the termination detail can be completed.

The product is approved for use by Carlisle authorized roofing applicators only and is for use in Carlisle roofing and waterproofing installations.

Review Carlisle specifications and details for complete application information.

Precautions

- » Review the applicable Safety Data Sheet for complete safety information prior to use.
- » Keep container closed when not in use. Use with adequate ventilation. If inhaled, remove to fresh air.
- » If swallowed, DO NOT INDUCE VOMITING. Call a physician immediately.
- » Avoid contact with eyes. Safety glasses or goggles are recommended. If splashed in eyes, immediately flush eyes with plenty of water for at least 15 minutes. Contact a physician immediately.
- » Avoid contact with skin. Wash your hands thoroughly after handling. In case of contact with skin, thoroughly wash affected area with soap and water.
- » Jobsite storage temperatures in excess of 90°F (32°C) may affect product shelf life. DO NOT ALLOW PRODUCT TO FREEZE. Do not store below 40°F.
- » Do not thin the Aqua Base 120 Adhesive. Thinning will affect performance and may coagulate the adhesive.

- » Adhesive will turn from pink to clear with a yellow cast when completely dry. Dry time is dependant on ambient conditions.
- » This adhesive is to be applied when the ambient temperature is 40°F (4°C) and rising. Do not apply if ambient temperature will drop below 32°F (0°C) before adhesive completely dries.
- » Opened containers of adhesive should be used within 48 hours. The adhesive will form a thick surface skin that will not re-dissolve. Adhesive can be used once the skinned layer is removed.
- » Extended drying times can be expected in cool or humid conditions as well as shaded areas. Not allowing the adhesive to dry in a standard membrane application will result in poor adhesion strength or blisters occurring over time.
- » KEEP OUT OF THE REACH OF CHILDREN.

Typical Properties and Characteristics

Base	Acrylic
Color	Pink (yellow cast when dry)
Solids	57.5%
Flash Point	>212°F
Brookfield Viscosity	20,000 centipoise
Average Net Weight	8.8 lbs/gal (1.05 kg/l)
Packaging	5-gallon pail
Shelf Life	1 year

Typical properties and characteristics are based on samples tested and are not guaranteed for all samples of this product. This data and information is intended as a guide and does not reflect the specification range for any particular property of this product.

LEED® Information

Pre-consumer Recycled Content	0%
Post-consumer Recycled Content	0%
VOC Content	4 g/l
Manufacturing Location	Greenville, SC

