



MBR® Bonding Adhesive

Description

Johns Manville (JM) MBR Bonding Adhesive is a unique, two-component, solvent free, elastomeric, cold application adhesive, consisting of an asphalt base material and an activator.

Use

JM MBR Bonding Adhesive is for use in applying roofing plies, modified bitumen membranes, and insulation. JM MBR Bonding Adhesive is used as a direct substitute for hot asphalt. JM MBR Bonding Adhesive is ideal for those applications where hot asphalt is prohibited, not desirable or not practical.

The adhesive will set within one hour, holding the modified bitumen or roofing insulation in place, and will cure in two to four hours into a tough, durable and highly weatherable rubber film. All modified bitumen sheet laps should be treated with the adhesive.

Applications

JM MBR Bonding Adhesive is prepared on site by adding specific premeasured amounts of JM MBR Bonding Adhesive Activator and mixing for a minimum of three minutes. The adhesive is prepared in the MBR Bonding Adhesive container, a 6 gal (22.7 l) pail, with the use of an 8" (203 mm) mud mixer mounted on a ½" (13 mm) electric drill motor. The container of MBR Bonding Adhesive Activator (0.60 gal [2.3 l]) is packaged to provide exactly the correct amount of material necessary to react with the contents of MBR Bonding Adhesive Base (4.4 gal [16.7 l]), resulting in 5 gal (18.9 l) of total mixed product. The activator is heavier and has a lower viscosity than the base material. To produce a complete mix, the MBR Bonding Adhesive Activator must be poured **slowly** into the vortex caused by the rotating mixer. The activator must not be dumped into the pail in one motion.

The adhesive has a pot life that is dependent on the ambient temperature. The applicator will have to use the mixed material in approximately:

Temperature (°F)	50	60	70	80	90	100
(°C)	10	16	21	27	32	38
Minutes	55	50	45	40	35	30

The mixing of individual pails of adhesive should be timed so that one can of freshly mixed material is ready for the application crew. Mixed adhesive must not be stockpiled, since the material will cure to an unworkable viscosity before the application crew can use it.

The product can also be used as an insulation adhesive when applied in ¾" to 1" (19 mm to 25 mm) strips 12" (305 mm) apart to approved insulation. Outside strips should be approximately 6" (102 mm) from the edge of the board. The coverage rate in this application is 130 to 150 ft²/gal (3.2 to 4.9 m²/l) depending on the substrate. Contact JM Technical Services for more information.

Advantages

- 100% solids with **no volatile organic compounds (VOCs)**
- Low odor
- Fast set time
- Can be applied over wide temperature and humidity ranges.
- Fully cures regardless of thickness applied.
- FM Global® approved
- High strength with exceptional wind uplift performance
- Cures to a durable, elastomeric film and forms exceptional bonds between the modified bitumen membranes, insulations and underlying substrates.

MBR Bonding Adhesive should not be installed over cut-back primer.

MBR Bonding Adhesive can be installed with a notched squeegee or trowel. Average coverage per ply* is 50 to 70 ft²/gal (1.23 to 1.72 m²/l).

Tools and equipment can be cleaned with mineral spirits.

* Coverage rates depend upon weather conditions and substrate. Refer to specific code agency Web sites for exact construction information.

Physical Properties

Property	Value	Test Method
Deflection Temperature		
Test limit of apparatus.....	Below -10°F (-23°C)	ASTM D 648
Extension to Break.....	100%	ASTM D 412
Hardness Shore		
A @ 77°F (25°C).....	25	ASTM D 2240
Tensile Strength	250 psi (2.8 MPa)	ASTM D 412
Peel Resistance of Adhesives.....		ASTM D 1876 (T-Peel Test)
Sanded Surface SBS*.....	8 pli min.	
Smooth Surface SBS**.....	15 pli min.	
Wood***.....	25 pli	
Concrete****.....	25 pli min.	

* Adhesive failure between sand and SBS roof membrane

** Cohesive failure – SBS Membrane

*** Cohesive Failure – MBR Bonding Adhesive

**** Cohesive Failure – MBR Bonding Adhesive

Precautions

Everyone handling adhesives should wear protective gloves and safety glasses. All of the adhesive must be mixed properly and used immediately. MBR Bonding Adhesive may cause eye, skin and respiratory irritation, and is harmful or fatal if swallowed.

Refer to the Material Safety Data Sheet and product label prior to using this product.