EVERGUARD MS Sealant-LM Low Modulus One-Component Silane-modified Sealant

BMI EverGuard Sealant is a general-purpose sealant based on advanced MS Polymer technology. It is a single-component elastomeric sealant with excellent adhesion property on various substrates like concrete. After curing, the sealant is permanently elastic and has a movement capability of ±50%.

It is able to comply with the stringent requirements of ASTM C920 as well as the SCAQMD rule #1168 (Architectural Sealant) for low VOC. Unlike polyurethane sealants, BMI EverGuard Sealant is solvent-less and isocyanate-free; ensuring that the cured sealant will not shrink or have bubbling issues. It is also free of silicone oil, minimising building aesthetic issues caused by oil-staining and dirt-streaking problems often associated with silicone sealants.

PRODUCT INFORMATION	
Base	One-component MS polymer
Physical State	Non-sagging paste (before cure), elastic rubber (after cure)
Colours	White / Grey / Black / Teak
Tack-free/ Skin-form Time	20 – 60 minutes (At 25 °c & 50% R.H.)
Packaging	290 Ml/cartridge (20 cartridges/carton) 600 Ml/sausage (20 sausages/carton)
Storage	Store in a dry and cool place with temperature below 30 °c
Application Temperature	5 °c – 40 °c
Service Temperature	-20 °c – 90 °c

*The above is standard size, please refer to the BMI for other board sizes.

In view of innovation, the specifications are subject to change without any prior notice and in the event of such changes, BMI shall ensure that the new specifications are equivalent if not better.

PRODUCT & TECHNICAL DATA		
Curing system	Moisture curing	
Density	1.53 – 1.58 g/mL	
Tensile strength	>1.0 N/mm²	ASTM D412
Elongation	>500 %	ASTM D412
Movement capability	±50 %	ASTM C719
Shore A hardness	25 – 35	ASTM C661
Elastic recovery	>70 %	ISO 7389
Slump	<1mm	ASTM D2202
Low VOC compliant	Yes; <10 g/L	USEPA Method 24
Cure depth (24 hours) at 23 °C, 50% humidity	Approx. 3 mm	

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FEATURES

- ASTM C920 (Class 50) compliant
- ISO 11600 (F Class 25 LM) compliant
- Better weathering resistance than PU sealants
- Paintable
- Low static charge – Less dirt streaking
- Silicone-oil free – Non-staining on adjacent substrates
- Isocyanate-free – No air bubbling
- Solvent-free – No shrinkage
- Primerless bonding to most surfaces

APPLICATION

Recommended for sealing concrete joints like precast wall panel joints, expansion joints, control joints, connection joints, etc. It is also ideal for window frame perimeter sealing especially when the sealant needs to be painted. Other recommended applications include sealing of GRC panel systems, anodized aluminium, masonry, porcelain, coated metal, finished wood, epoxy and polyester panels, UPVC, polystyrene, and stainless steel.

PREPARATION

- Substrate surface must be dry and clean; free of dirt, grease, oil, or standing water.
- Use the two-cloth method to clean if surface is dirty.
- For a neat finishing, use masking tapes and remove it within the working time.
- 602 Primer is recommended for porous substrates such as concrete for excellent adhesion.
- For sealant designs with depths of over 10 mm, use approved backing materials.

APPLICATION DIRECTION

Cartridges:

1. Cut the cartridge tip carefully.
2. Cut the nozzle into an appropriate diameter at an angle of approximately 45° to 60°.
3. Use a caulking gun and extrude the sealant with a single bead.
4. Tool the sealant bead with a clean and dry tool before the sealant skins for a smooth finishing.

Sausages:

1. Cut the tip of the sausage carefully and slip it into the caulking gun.
2. Cut the nozzle into an appropriate diameter at an angle of approximately 45° to 60°.
3. Place the nozzle into the caulking gun and screw tight.
4. Extrude the sealant with a single bead.
5. Tool the sealant bead with a clean and dry tool before the sealant skins for a smooth finishing.

CLEAN UP

- Wet sealants can be cleaned up with acetone or mineral spirits.
- Cured sealants can only be removed mechanically.

JOINT DESIGN

- Joint dimension should be designed by taking into consideration the movement capability of the sealant and the anticipated joint movement anticipated joint movement.
- Generally the joint width-to-depth ratio is 2:1 for joint width ≥12 mm, or 1:1 for joint width <12 mm.
- Joint width: minimum = 6 mm, maximum = 35 mm*
- Joint depth: minimum = 6 mm, maximum = 12 mm

* Sealing joints with larger joint width is possible but sealant may sag in vertical applications.

COVERAGE

WIDTH	DEPTH	COVERAGE (290 ml)*	COVERAGE (600 ml)*
6mm	6mm	7.32 meter	15.15 meter
10mm	10mm	2.64 meter	5.45 meter
20mm	10mm	1.32 meter	2.73 meter
25mm	12mm	0.88 meter	1.82 meter

* The coverage figures shown above are approximate lineal meter run based on 10% wastage assumption. Actual coverage may vary.

X /[(Y x Z) x 1.1] = Coverage

X = volume of cartridge (or sausage) in ml,
Y = joint width in cm, **Z** = joint depth in cm,
1.1 = 10% wastage assumption,

Coverage =
lineal meter run in cm per cartridge (or sausage)

LIMITATIONS

Not recommended for the following applications:

- Below waterline or permanent water immersion.
- Outdoor sealing/bonding to glass substrates.
- Polyethylene, polypropylene, polytetrafluoroethylene (Teflon), neoprene, and bituminous surfaces.
- Overcoated with
  - Alkyd resin paint - cure inhibition to the paint
  - Chlorinated paint - staining issue
  - Oil based paint - not compatible

CAUTION

Keep out of reach of children. Contains aminosilane. May produce an allergic reaction. Safety data sheet available on request. For further health and safety information, consult the latest safety data sheet.

LEGAL NOTES

Every endeavour has been made to ensure that the information given herein is true and reliable but it is given only for the guidance of our customers. The company cannot accept any responsibility for the loss or damage that may result from the use of the information, due to the possibility of variations of processing or working conditions and of workmanship outside our control. Users are advised to confirm suitability of this product by their own tests.

LIMITED WARRANTY INFORMATION

BMI provides material warranty for a duration of 5 years if the product is used within its shelf life and in compliance with industrial standard application procedures. BMI disclaims liability for any consequential or incidental loss or damages caused by incorrect usage. The material warranty only covers the replacement of the product without the other costs incurred, if the failure is proven to be directly related to the product within the warranty period. Material warranty will only be available once customer submits all the necessary documents and information, and an official material warranty letter is issued by BMI. Any claim of warranty shall be made directly to BMI in writing. BMI shall hold no responsibility until site inspection by representatives of BMI to confirm the alleged failure has been carried out.

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