

CEMTECH MS SEALANT

PRODUCT DESCRIPTION

Cemtech MS 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 $\pm 50\%$.

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, it 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.

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.

FEATURES

- ASTM C920 (Class 50) 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

TECHNICAL DATA

Curing System	Moisture Curing
Base	One-component MS Polymer
Appearance	Non-sagging paste (before cure) Elastic rubber (after cure)
Density	1.54 gm/ml
Tack-free Time	20 – 60 minutes
Maximum Tensile at Break (ASTM D412)	1.1 N/mm ²
Elongation at Break (ASTM D412)	600 %
Shore A Hardness (ASTM C661)	33
VOC Content (USEPA Test Method 24)	< 10gm/L

Joint Movement Capability (ASTM C719)	$\pm 50\%$
Elastic recovery (ISO 7389)	>70 %
Slump (ASTM D2202)	<1mm
Cure Depth (24 hours) at 23 °C, 50 % Humidity	Approx. 3 mm
Application Temperature	5°C to 40°C
Service Temperature	-30 °C to 90 °C

DIRECTIONS OF USE

1. Surfaces must be clean, dry and free of dirt, grease, oil or water.
2. For a neat finishing, apply masking tape and remove it before sealant skins over.
3. Primer is recommended for porous substrates such as concrete for excellent adhesion.
4. Cut the tip off and puncture the internal foil seal with the nozzle. Cut the nozzle at 45° angle to desired bead-width and apply the sealant to substrate with a cartridge gun.
5. Tool the sealant before it skins.
6. Uncured sealant can be cleaned up with mineral spirits.
7. Use approved backing material for joints over 10 mm deep.

CLEAN UP

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

LIMITATION

Not recommended for the following applications:

- Below waterline or permanent water immersion.
- Outdoor sealing/bonding adjacent 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

JOINT DESIGN

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- Joint dimension should be designed by taking into consideration the movement capability of the sealant and the 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.

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COVERAGE

Width	Depth	Coverage (290 ml) *	Coverage (600 ml) *
6 mm	6 mm	7.32 meter	15.15 meter
10 mm	10 mm	2.64 meter	5.45 meter
20 mm	10 mm	1.32 meter	2.73 meter
25 mm	12 mm	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.

- Calculation formula:

$$X / [(Y \times Z) \times 1.1] = \text{Coverage}$$

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)

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.

STORAGE AND CONTENT

- Store in a dry and cool place with temperature below 30°C.
- From the date of production, 12 months in aluminium foil sausage.

DISCLAIMER