



Technical Data Sheet

BS-8221 Hybrid MS Sealant



Features

- ♦ High Strength & Elastic
- ♦ Good UV Resistance
- ♦ Paintable
- ♦ Isocyanate-free – No air bubbling
- ♦ Solvent-free – No shrinkage
- ♦ Environmental Friendly
- ♦ Primerless Bonding to Most Substrates

Available Colors

- ♦ White
- ♦ Black
- ♦ Grey

Packaging

- ♦ 290 ml (cartridge)~20/carton

Storage

- ♦ Store in a dry and cool place with temperature below 30 °C.
- ♦ Use within 9 months from date of production.

Product Specification

Curing System	: Moisture Curing
Density	: Approx. 1.48 g/mL
Appearance	: Non-Sagging Paste
Tack-Free Time	: ~10 minutes
Tensile Strength (ASTM D412)	: >1.8 N/mm ²
(ISO 8339)	: 0.60 N/mm ² (6.2 kgf/cm ²)
Elongation at Break (ASTM D412)	: >400 %
Lap Shear Strength (ASTM D1002)	: >1.0 N/mm ² (Al to Al)
Shore A Hardness (ASTM C661)	: 35 - 45
VOC Content (USEPA Test Method 24)	: < 10 g/L
Application Temperature	: 5 °C to 40 °C
Service Temperature	: -20 °C to 90 °C

Description

A single-component, high-performance sealant based on advanced MS Polymer technology. It is solvent, silicone and isocyanate free. It is excellent in UV, weather and temperature resistance. Its adhesion over a wide variety of substrates is very good, and is paintable with most types of common industrial paints.

Applications

Suitable for high strength sealing or bonding in construction, automotive, marine, and industrial applications. It works on various substrates like plastics, metals, rubber, natural materials (wood, plywood, leather, cloths, paperboard etc.) & inorganics (concrete, mortar, natural stone, tile, glass, porcelain etc.).

Directions

1. Surfaces must be clean, dry and free of dirt, grease, oil or water.
2. For a neat finish, apply masking tape and remove it before sealant skins over.
3. 602 Primer is recommended for porous substrates such as concrete for excellent adhesion.
4. Cut tip off and puncture the internal foil seal with nozzle. Cut nozzle at 45° angle to desired bead-width and apply to substrate with cartridge gun.
5. Tooling time is 5 minutes, tack-free time is 10 minutes.
6. Uncured sealant can be cleaned up with mineral spirits.
7. Use approved backing material for joints over 10mm deep.

Clean Up

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



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Joint Design

- ♦ 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.

Coverage

Width	Depth	Coverage (290 ml) *
6 mm	6 mm	7.32 meter
10 mm	10 mm	2.64 meter
20 mm	10 mm	1.32 meter
25 mm	12 mm	0.88 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)

Limitations

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

Used in trafficable joints greater than 10 mm width. For trafficable joint above 10 mm width, a steel cover plate is required.

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.

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