



MS-602

MS ADVANCED POLYMER SEALANT



x'traseal®

TECHNICAL DATA SHEET

REV: 11

Date: 28 February 2025

DESCRIPTION

MS-602 is based upon hybrid silyl modified polyether technology. It is a neutral, single component, low modulus with high movement capability joint sealant. It has an outstanding bond strength and primerless adhesion on various types of substrates. It can be painted with most type of paints and has superior weatherability in all climates. MS-602 is designed for use on prestige buildings. This specially formulated non-bleeding sealant technology with low static charge property can greatly reduce or minimize dirt pick up and surface streaking / staining. It's ideal for application on difficult substrate associated with modern facade construction. MS-602 is a durable, flexible, non-sagging sealant that offers excellent performance in moving joints and exhibits tenacious adhesion.

FEATURES

- ◆ Conform to ASTM C920 - CLASS 50 & ASTM C1248
- ◆ Permanently flexible & crack resistant
- ◆ No visible stain even on porous substrate
- ◆ Excellent UV radiation and weather resistance
- ◆ Primerless adhesion on most surfaces
- ◆ Joint movement capability up to +/- 50 %
- ◆ Free of isocyanate, solvent, acid and silicone oil
- ◆ No bubble formation within sealant
- ◆ Can be applied on damp surface
- ◆ Suitable for indoor and outdoor uses
- ◆ Fungus is not easily grow on sealant

USES

MS-602 is specially developed as a universal sealant for sealing joints in prefabricated buildings or concrete panels, expansion and connection joints in the building and construction industry, bonding or sealing of natural stones and aluminium sub-frames, sealing between window and door frames and movement or perimeter joints around buildings.

Due to a large variety of different coatings and substrates, we recommend preliminary compatibility tests prior to application to achieve desirable results

JOINT DESIGN

The specified sealant bead size should be calculated to comply with the compression and extension capabilities of the sealant in relation to the anticipated joint width due to expansion and contraction.

MS-602 has a movement accommodation factor (MAF) of 50%. The theoretical minimum joint width may be calculated

$$W = \frac{M}{MAF/100} + M$$

M = Expected Maximum Working Movement Of Joint

MAF = Movement Accommodation Factor of Sealant

A minimum of 6mm substrate sealant bond is necessary to ensure adequate adhesion and accommodate movement. Joint depth should not less than 6mm and not greater than 12mm. The optimal ratio of sealant width to depth is 2:1. Backer material should be installed to prevent 3 side adhesion and to control sealant depth.



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Suitable joint width* vs depth:

6mm x 6mm	20mm x 10mm
12mm x 6mm	25mm x 12mm
16mm x 8mm	30mm x 12mm

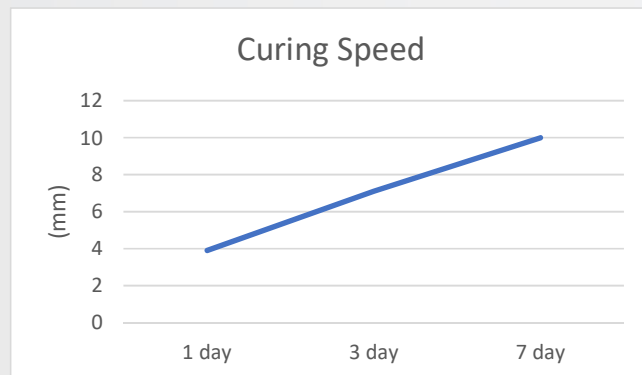
*Bigger joint width may encounter at the job site condition but have to take precautions step as sealant may sag on vertical application.

APPLICATION

- Substrates must be clean, dry and free from grease. Remove all dirt, oil, grease, detergents and loose material.
- The joint edges can be masked with tape to prevent contamination of adjacent substrates. The tape should be removed carefully after tooling.
- Cut tip off cartridge. Cut nozzle to desired size at 45° angle. Screw nozzle onto cartridge. Place cartridge into caulking gun.
- Extrude the sealant firmly into joint to ensure complete contact with joint faces.
- Tool as required within the tooling time to achieve smooth surface.

CURING TIME

MS-602 will skin forming in approximately 15 minutes and it will cure to a depth of 10 mm in 7 days. Longer curing time may be necessary in dry and low humidity area.



PAINTABILITY

MS-602 is paintable with water based paints, however due to large number of paints and varnishes available we strongly suggest a compatibility test before application. Paints based on alkyd resins may have extended drying time.

Note: MS-602 has larger movement capability than a normal paint film. Cracking of paint film may occur with movement in joint.

CHEMICAL RESISTANCE

Good resistance to water, diluted inorganic acids and alkalis.

Poor resistance to concentrated acids and alkaline solutions, organic solvents, and halogenated hydrocarbons.

CLEAN UP

Excess sealant can be removed with mineral spirit and cleaning solvent before cured. After curing, MS-602 may only be removed mechanically.



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LIMITATIONS

MS-602 is not suitable for the following applications:

- PE, PP, PMMA, PTFE, plastics containing softeners, and bituminous substrates
- Structural glazing
- Totally confined spaces where there is no atmospheric humidity, which is needed for proper curing
- Under water applications
- Heavy trafficable surface / joints
- Exposure to aggressive solvents or chemicals
- Food contact

PACKAGING

290 ml cartridges / 24 per carton

600 ml sausages / 20 per carton

COLOR

White, grey and black, other colors upon request.

SHELF LIFE

9 months for cartridge packaging & 12 months for sausage packaging (unopened) in a cool and dry storage place at temperatures between +5°C and +30°C.

QUANTITY ESTIMATION

Number of 600ml sausage

$$= \frac{\text{JOINT WIDTH (MM)} \times \text{JOINT DEPTH (MM)} \times \text{JOINT LENGTH (M)} \times 1.15}{600}$$

Number of 290ml cartridge

$$= \frac{\text{JOINT WIDTH (MM)} \times \text{JOINT DEPTH (MM)} \times \text{JOINT LENGTH (M)} \times 1.15}{290}$$

* With 15% wastage estimation



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SPECIFICATION

Properties	Value	Method
Curing system	Neutral	-
Appearance	Non-sagging paste	Visual
Smell	Odorless	Visual
Joint movement capability	+/- 50 %	ASTM C719
Rheological (flow) properties I) vertical displacement: II) horizontal displacement	0 mm sag No deformation	ASTM C639
Specific gravity	1.48 +/- 0.02 (white & grey) 1.47 +/- 0.02 (black)	ASTM D1475
Hardness (Shore A)	29 approx.	ASTM D2240
Staining	No staining	ASTM C510 & ASTM C1248
Color change	No color change	ASTM C510
Elongation at break	600% approx.	ASTM D412
Tensile at break	1.24 MPa	ASTM D412
Secant modulus @ 23°C at 100% elongation	0.41 MPa	ASTM D412
Application temp.	5°C to 40°C	-
Service temp.	-40°C to 100°C	-
Lap shear strength (AL To AL.)	0.65 MPa	ASTM C961

CAUTION

Read and understand material safety data sheet of this product before handling or using.

This information is provided in good faith and is believed accurate based on a review of current composition and information supplied by vendors. No warranty is expressed or implied. Liability is expressly disclaimed.

LIMITED WARRANTY

Mohm Chemical Sdn Bhd provides a 10-year material warranty for its sealants products, contingent upon usage within the product's specified shelf life and in compliance with standard industry application procedures. Mohm Chemical specifically disclaims any liability for indirect or incidental damages arising from improper use. The warranty solely covers the replacement of the product and does not cover any other costs incurred during the warranty process. Valid warranty coverage commences only after Mohm Chemical receives all requisite documentation and issues an official material warranty letter. All warranty claims must be filed in writing directly to Mohm Chemical. Responsibility for the product failure is not assumed by the company until an inspection has been performed by Mohm Chemical's representatives to confirm the failure.