
 Formulated For the Professional	VITAL TECHNICAL SDN. BHD.		Issuance Date: 14/02/11 Revision No.: 29 Revision Date: 17/06/16 Page: 1 Of 2
	Technical Data Sheet		VT-620/ 620S LM MS Sealant

VT-620/ 620S LM MS Sealant

Low Modulus One-Component MS Sealant



BASE

One-component
MS Polymer

PHYSICAL STATE

Soft paste

COLORS

White
Grey
Black
Teak

TACK-FREE TIME

30 – 60 minutes
(at 25°C & 50% R.H.)

PACKAGING

290 mL/cartridge
(20 cartridges/carton)
600 mL/sausage
(20 sausages/carton)

SHELF LIFE

9 months (cartridge)
12 months (sausage)

STORAGE

Store in a dry and cool place with temperature around 25°C

APPLICATION TEMPERATURE

5 °C – 40 °C

SERVICE TEMPERATURE

-30 °C – 100 °C

DESCRIPTION



VT-620 LM MS Sealant is a general purpose sealant based on advanced MS Polymer technology. It is a single-component elastomeric sealant with superior weathering, UV, and temperature resistance. This elastomeric sealant is permanently elastic upon curing and has a movement capability of $\pm 50\%$.

Specially formulated to achieve superior performance and low VOC, VT-620 is able to comply to the stringent requirements of ASTM C920 as well as the SCAQMD rule #1168 (Architectural Sealant) for low VOC. It also gives good primer-less adhesion on most substrates.

Unlike polyurethane sealants, VT-620 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.

TECHNICAL DATA

Base	: 1-component MS Polymer	
Curing System	: Moisture curing	
Density	: Approx. 1.55 g/mL	
Tensile Strength	: >1.0 N/mm ²	ASTM D 412
Elongation	: >600%	ASTM D 412
Lap Shear Strength	: >0.5 N/mm ² (Al to Al)	ASTM D1002
Movement Capability	: $\pm 50\%$	ASTM C719
Shore A Hardness	: 25 – 35	ASTM C661
Low VOC Compliant	: Yes; <10 g/L	USEPA Method 24

FEATURES



- ASTM C920/ ISO11600 compliant
- $\pm 50\%$ movement capability
- Good UV resistance
- Low static charge – Less dirt streaking
- Silicone free – Paintable
- Isocyanate free – No air bubbling
- Solvent free – No shrinkage
- Reactive plasticizer – Non-staining
- Primer-less bonding to most surfaces

APPLICATIONS

Recommended for sealing concrete joints like wall panel joints, expansion joints, control joints, etc. It is also ideal for window frame perimeter sealing especially when the sealant needs to be painted. Facade cladding designed with metal panels or natural stones can be sealed with this product too. Other recommended applications include sealing of anodized aluminum, 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 especially for porous substrates such as concrete for excellent adhesion.
- For sealant designs with depths of over 10 mm, use approved backing materials.

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	Technical Data Sheet		Revision No.: 29
	VT-620/ 620S LM MS Sealant		Revision Date: 17/06/16
			Page: 2 Of 2

VT-620

LM MS Sealant

APPLICATION DIRECTION

Cartridges:

1. Cut the cartridge tip carefully.
2. Puncture the internal aluminium foil inside with the nozzle.
3. Cut the nozzle into an appropriate diameter at an angle of approximately 45° to 60°.
4. Use a caulking gun and extrude the sealant with a single bead.
5. Tool the sealant bead with a clean and dry tool within the working time 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 within the working time 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

- 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.
- Generally calculation of the width sealant bead should be computed on the basis of a maximum $\pm 50\%$ movement capability
- Minimum bead size should not be less than 3 mm to accommodate movement.
- Sealant design joint width-to-depth ratio should be 2:1.

LIMITATIONS

Not recommended for following applications:

- Below waterline or permanent water immersion.
- Outdoor glass substrates sealing.
- Polyethylene, polypropylene, polytetrafluoroethylene (Teflon), neoprene, and bituminous surfaces.
- Paintable with alkyd resin paint.
- Used on trafficable joints greater than 10 mm width. For trafficable joint above 10 mm width, a steel cover plate is required.

CAUTION

- Uncured adhesive causes skin and eye irritation upon contact.
- Avoid contact with eyes, skin and mouth.
- Use in well-ventilated area. In case of contact with eyes, flush with water immediately for 15 minutes. If irritation persists, seek medical attention.
- Keep out of reach of children.
- EUH208 - Contains 3-(2-Aminoethylamino) propyltrimethoxysilane. May produce an allergic reaction

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 various 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

Vital Technical 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. Vital Technical 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 Vital Technical. Any claim of warranty shall be made directly to Vital Technical in writing. Vital Technical shall hold no responsibility until site inspection by representatives of Vital Technical to confirm the alleged failure has been carried out.