

**VITAL TECHNICAL SDN. BHD.**

Technical Data Sheet

**VT-624 / VT-624S
MS Construction Sealant**

Issuance date: 14/12/2020

Revision date: 12/04/2024

Revision No.: 24-01

VT-624 / VT-624S MS Construction Sealant

Low Modulus One-Component MS Sealant

**BASE**One-component
MS Polymer**PHYSICAL STATE**Non-sagging paste
(Before cure)Elastic rubber
(After cure)**STANDARD COLOURS**(B10) Black
(G10) Grey
(W10) White**TACK-FREE/
SKIN-FORM TIME**20 – 60 minutes
(at 25 °C & 50% R.H.)**PACKAGING**290 mL/cartridge
(20 cartridges/carton)500 mL/sausage
(20 sausages/carton)600 mL/sausage
(20 sausages/carton)**SHELF LIFE**

12 months

STORAGEStore in a dry and cool
place with temperature
below 30 °C**APPLICATION
TEMPERATURE**

5 °C – 40 °C

**SERVICE
TEMPERATURE**

-30 °C – 90 °C

DESCRIPTIONA standard elastomeric sealant formulated based on advanced MS Polymer technology. It is a low-modulus sealant that comes with $\pm 25\%$ movement capability and good weather resistance.

VT-624 is suitable for sealing fillet joints (wall to wall, wall to floor junctions) as part of a waterproofing system. It does not release solvent, which can adversely affect water based waterproofing membranes. Unlike Polyurethane sealants, it cures faster and does not bubble during cure. It is also ideal for sealing window & door perimeter seals in buildings where a paintable elastic seal is required.

**TECHNICAL
DATA**

Curing system	: Moisture curing	
Specific gravity	: 1.65 g/mL	
Ultimate tensile strength	: 1.1 N/mm ²	ASTM D412
Slump	: <1mm	ASTM D2202
Elongation at break	: 600 %	ASTM D412
Shore A hardness	: 30	ASTM C661
Movement capability	: $\pm 25\%$	ASTM C719
Low VOC compliance	: Yes	SCAQMD Rule #1168
VOC content	: 15.55 g/L	USEPA Method 24
Cure depth (24 hours) at 23 °C, 50% humidity	: Approx. 4 mm	

FEATURES

- ±25 % Movement capability
- Low VOC compliant
- Good UV resistance
- Paintable
- Silicone oil-free (non-staining on adjacent substrates)
- Isocyanate-free – No air bubbling
- Solvent-free – No shrinkage

**APPLICABLE
TEST /
STANDARD**

- VT-624 meets the requirements of:
- ASTM C920, Type S, Grade NS, Class 25, Use NT, M & A
 - Low VOC - USEPA Method 24 under rule 1168

APPLICATION

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

PREPARATION

- Substrate surface must be clean, free of dirt, grease, oil, or standing water.
- 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:**

- Poke the cartridge's aluminium foil with the nozzle tip.
- Cut the nozzle into an appropriate diameter at an angle of approximately 45° to 60°.
- Use a caulking gun and extrude the sealant with a single bead.
- Tool the sealant bead with a clean and dry tool before the sealant skins for a smooth finishing.

Sausages:

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



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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
- 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) *
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 linear 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 = linear 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

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

Vital Technical provides material warranty for a duration of 5 years if the product is used within its shelf life and in compliance with ASTM C1193-16 Standard Guide for Use of Joint Sealants, with minimum sealant thickness of 6 mm (movement joint) and others 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.