



VITAL TECHNICAL SDN. BHD.

Technical Data Sheet

VT-625 / VT-625S Ultimate Construction Sealant



Issuance date: 03/08/2015

Revision date: 27/06/2023

Revision No.: 23-02

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MS Facade Sealant

BASE

One-component
MS Polymer

PHYSICAL STATE

Soft paste

STANDARD COLORS

(B10) Matte black
(G10) Matte grey
(W10) Matte white

TACK-FREE/ SKIN-FORM TIME

20 – 40 minutes
(at 25 °C & 50% R.H.)

PACKAGING

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

SHELF LIFE

12 months

STORAGE

Store in a dry and cool
place with temperature
below 30 °C

APPLICATION TEMPERATURE

5 °C – 40 °C

SERVICE TEMPERATURE

-30 °C – 90 °C

DESCRIPTION



VT-625 Ultimate Construction Sealant is formulated based on advanced MS Polymer technology. It has excellent UV and weathering properties and it features matt finish. The static charge of this sealant is low, hence attracts less dust particles and reduces dirt streaking issues on facade cladding. This elastomeric sealant is permanently elastic upon curing and has a movement capability of $\pm 50\%$.

Specially formulated to achieve superior performance and feature low VOC emission and content, VT-625 is able to comply with the stringent requirements of ASTM C920 as well as contribute to the Leadership in Energy and Environmental Design (LEED) v4.1 credit.

Unlike polyurethane sealants, VT-625 is free of solvent and isocyanate, preventing shrinkage and bubbling issues in sealant after cure. It is also free of silicone oil, minimizing building aesthetic issues caused by oil staining and dirt streaking problems often associated with silicone sealants. It has been tested and meets the requirements of ASTM C1248, the standard test method for staining of porous substrate by joint sealants.

TECHNICAL DATA

Curing system	: Moisture curing	
Specific gravity	: 1.53 g/mL	
Ultimate tensile strength	: 1.0 N/mm ²	ASTM D 412
Elongation at break	: 530 %	ASTM D 412
Movement capability	: $\pm 50\%$	ASTM C719
Shore A hardness	: 27	ASTM C661
Staining on porous substrates	: No staining	ASTM C1248
Low VOC compliance	: Yes	SCAQMD Rule 1168
VOC content	: 10.21 g/L	USEPA Method 24
Low VOC emission compliance	: Yes	CDPH v1.2

FEATURES

- ±50% Movement capability
- Excellent UV resistance – 10-year material warranty*
- Paintable
- Silicone oil-free – Non-staining on adjacent substrates
- Low static charge – Less dirt streaking
- Isocyanate-free – No air bubbling
- Solvent-free – No shrinkage
- Primerless bonding to most surfaces
- Matte finish

* In compliance with ASTM C1193-16 Standard Guide for Use of Joint Sealants, with minimum sealant thickness of 6 mm (movement joint)

APPLICABLE TESTS / STANDARDS

- VT-625 meets the requirements of:
- ASTM C920, Type S, Grade NS, Class 50, Use NT, A & M
 - ASTM C1248 : 2018 Standard Test Method For Staining Of Porous Substrate By Joint Sealants
 - Leadership in Energy and Environmental Design (LEED) v4.1 EQ compliant
 - Low VOC Content - USEPA Method 24 under SCAQMD Rule 1168
 - Low VOC Emission - CDPH Standard Method v1.2- 2017
 - RoHS I & RoHS II

APPLICATION

Recommended for sealing concrete joints like wall panel joints, expansion joints, control joints, etc. Facade cladding designed with metal panels or natural stones can be sealed with this product too. Other recommended applications include sealing of anodized aluminium, 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.
- For a neat finishing, use masking tapes and remove it within the working time.
- 602 Primer is recommended for porous substrates such as natural stone for excellent adhesion.
- For sealant designs with depths of over 10 mm, use approved backing materials.

(Scan to learn how
to use)



Visit product page:
<https://vitaltechnical.com/product/vt-625-ultimate-construction-sealant/>



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APPLICATION DIRECTION

Cartridges:

1. Cut/Poke the cartridge's aluminium foil with the nozzle tip.
2. Cut the nozzle into an appropriate diameter at an angle of approximately 45° to 60°.
3. Use a caulking gun and extrude the sealant with a single bead.
4. 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.

Caution:

DO NOT paste excess sealant onto the protective film of aluminium composite panel (ACP).

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

CAUTION

Toxic to aquatic life with long lasting effects. Collect spillage. 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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LIMITED WARRANTY INFORMATION Vital Technical provides material warranty for a duration of 10 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.