

	VITAL TECHNICAL SDN. BHD.	 
	Technical Data Sheet	
	VT-291 Non-Staining Stone Sealant	

Issuance date: 12/07/2023

Revision date: 28/11/2023

Revision No.: 23-02

VT-291 Non-Staining Stone Sealant

100% Neutral Silicone Sealant

BASE

Silicone polymer

PHYSICAL STATE

Non-sagging paste
(Before cure)
Elastic rubber
(After cure)

STANDARD COLOURS

(B10) Matte Black
(W10) Matte White
(G10) Matte Grey

TACK-FREE / SKIN-FORM TIME

≤3 hours

PACKAGING

300 mL/cartridge
(24 cartridges/carton)
600 mL/sausage
(20 sausages/carton)

SHELF LIFE

Use within 12 months from date of production.

STORAGE

Storage Store in dry and cool place with temperature below +25°C.

APPLICATION TEMPERATURE

-20 °C – 50 °C

SERVICE TEMPERATURE

-40 °C – 150 °C

DESCRIPTION



A one-component, neutral-cure, high-performance, non-staining silicone sealant specially formulated to prevent staining on porous substrates where aesthetic considerations are important. It offers ±25% movement capability hence provides excellent performance in dynamic movement joints. It offers superior adhesion to a wide variety of building materials. It has excellent resistance to weathering, UV radiation, vibration, moisture, ozone, temperature extremes, airborne pollutants, etc.

TECHNICAL DATA

Slump	Vertical position, mm	≤3
Slump	Horizontal position, mm	No deformation
Extrusion, mL/min		≥80
Movement capability		±25 %
Elastic recovery		≥80 %
Tensile modulus/MPa	23°C	>0.4
Heat aging	Loss on weight after heat	≤5 %
	Cracking	: None
	Chalking	: None

FEATURES

- Non-staining on natural stone
- ±25 % movement capability
- Excellent UV and weathering resistance

APPLICABLE TESTS / STANDARDS

- VT-291 meets the requirements of:
- ASTM C920, Type S, Grade NS, Class 25, Use A, G & O
 - ASTM C1248 : 2018 Standard Test Method For Staining Of Porous Substrate By Joint Sealants
 - Low VOC - USEPA Test method 24 under SCAQMD Rule 1168

APPLICATION

Designed for weatherproofing sensitive natural stone. Also suited for weatherproof seal on most common building materials such as aluminium, galvanised and zinc-coated steel, painted surfaces, glass, brick, and concrete.

APPLICATION DIRECTION

Cartridges:

- Cut the cartridge tip carefully.
- 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 within the working time 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 within the working time 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**
- 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 joint depth should not be less than 6 mm to accommodate movement.
 - Sealant design joint width-to-depth ratio should be 2:1.

COVERAGE

Width	Depth	Coverage (300 ml) *
6 mm	6 mm	7.58 meter
10 mm	10 mm	2.73 meter
20 mm	10 mm	1.36 meter
25 mm	12 mm	0.91 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 following applications:

- On building materials that might bleed oils, plasticisers or solvents such as impregnated wood, oil-based caulks, green or partially vulcanized rubber gaskets or tapes, bitumen impregnated boards, felts or sheets.
- In totally confined spaces
- On frost-laden or wet surfaces.
- For continuous immersion in water or below-grade applications.
- On polycarbonate.
- On joints areas where wear due to physical friction are likely to be encountered.

HAZARD AND PRECAUTIONARY STATEMENT

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.

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

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