

**VITAL TECHNICAL SDN. BHD.****Technical Data Sheet****VT-218 / VT-218C
Glass & Metal Sealant**

Issuance date: 31/03/08

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VT-218 / VT-218C Glass & Metal Sealant

Neutral Silicone Sealant

BASE

Silicone polymer

PHYSICAL STATE

Paste

(Before Cure)

Elastic rubber

(After Cure)

STANDARD COLOURS**VT-218**

(T10) Translucent

VT-218C

(WC0) White

(BC0) Black

(GC0) Grey

SPECIAL COLOURS

(Made-to-Order)

VT-218

(B32) Dark Bronze

(W10) White

(B10) Black

(G10) Grey

VT-218C

(GC1) Dark Grey

(GC2) Dark Grey

**TACK-FREE /
SKIN-FORM TIME**

10 – 30 minutes

(at 25 °C & 50% R.H.)

PACKAGING

270 mL /cartridge

280 mL /cartridge

300 mL /cartridge

(24 cartridges/carton)

VT-218S

500 mL / 500 g /sausage

(20 sausages/carton)

VT-218CS

500 mL / 670 g /sausage

(20 sausages/carton)

SHELF LIFE

12 months

STORAGE

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

**APPLICATION
TEMPERATURE**

-20 °C – 50 °C

**SERVICE
TEMPERATURE**

Up to 150 °C

DESCRIPTION

VT-218 Glass & Metal Sealant is a neutral cure silicone sealant with excellent resistance to weathering, UV radiation, vibration, moisture, ozone, temperature extremes, airborne pollutants, and many cleaning detergents and solvents.



It is a single-component elastomeric sealant that is permanently elastic upon curing.

TECHNICAL DATA		VT-218	VT-218C
Curing system		: Oxime	: Oxime
Specific gravity		: 0.99 g/mL	: 1.34 g/mL
Slump (ASTM D2202)		: ≤1 mm	: ≤1 mm
Maximum tensile strength (ASTM D412)		: 1.3 N/mm ²	: 1.3 N/mm ²
Elongation at break (ASTM D412)		: 380 %	: 320 %
Shore A hardness (ASTM C661)		: 23	: 37
Movement capability (ASTM C719)		: ±25%	: ±25%
VOC content (USEPA Method 24)		: 108.95 g/L	: 88.10 g/L

FEATURES

- Neutral curing system
- ±25 % Movement capability
- Excellent adhesion
- Permanently flexible
- Excellent weather resistance
- Indoor and outdoor use

**APPLICABLE
TEST /
STANDARD**

- VT-218 meets the requirements of:
- ASTM C920, Type S, Grade NS, Class 25

APPLICATION

- Well-suited for sealing metal lap joints in roofing, guttering and cladding applications.
- It will bond to form a strong weatherproof seal on most common building materials such as aluminium, galvanized and zinc-coated steel, painted surfaces, glass, brick, and concrete.

PREPARATION

- Substrate surface must be dry and clean; free of dirt, grease, oil, or standing water.
- For a neat finishing, use masking tape and remove within the working time.
- 602 Primer is recommended especially for porous substrates such as concrete for excellent adhesion.
- For sealant designs with depth of over 10 mm, use approved backing materials.

**APPLICATION
DIRECTION**

- 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.

CLEAN UP

- Wet sealants can be cleaned up with acetone or mineral spirits.
- Cured sealants can only be removed mechanically.



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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 $\pm 25\%$ movement capability
- Minimum bead size 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 (280 ml) *	Coverage (300 ml) *
6 mm	6 mm	7.07 meter	7.58 meter
10 mm	10 mm	2.55 meter	2.73 meter
20 mm	10 mm	1.27 meter	1.36 meter
25 mm	12 mm	0.85 meter	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:

- Structural glazing applications.
- Below waterline or permanent water immersion.
- Traffic areas subject to abrasion.
- Polycarbonate and polyacrylate, if under tension.
- Applications that requires the sealant to be painted.
- Neoprene rubber.

CAUTION

May cause an allergic skin reaction. Avoid breathing dust/fume/gas/mist/vapours/spray. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves/protective clothing/eye protection/face protection/hearing protection. IF ON SKIN: Wash with plenty of water. Specific treatment (see supplemental first aid instruction on this label). If skin irritation or rash occurs: Get medical advice/attention. 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.