



VITAL TECHNICAL SDN. BHD.

Technical Data Sheet

VT-214
Polycarbonate Sealant



Issuance date: 27/07/16

Revision date: 06/11/20

Revision No.: 20-02

VT-214 Polycarbonate Sealant

100% Neutral Silicone Sealant



BASE

Silicone polymer

PHYSICAL STATE

Non-sagging paste
(Before curing)
Elastic rubber
(After cured)

COLOR

Translucent

TACK-FREE / SKIN-FORM TIME

15 – 60 minutes
(at 25 °C & 50% R.H.)

PACKAGING

300 mL/cartridge
(24 cartridges/carton)

SHELF LIFE

12 months (cartridge)

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-214 Polycarbonate Sealant is a one-component, 100% neutral cure silicone sealant specially formulated for polycarbonate bonding. It bonds well to polycarbonate even if it uses anti-scratch coating. It is also tested and does not cause discoloration to the standard polycarbonate material. It has excellent resistance to weathering, UV radiation, vibration, moisture, ozone, temperature extremes, airborne pollutants, and many cleaning detergents and solvents.

TECHNICAL DATA

Curing system	: Moisture curing, neutral	
Specific gravity	: 1.00 g/mL	
Slump	: <1 mm	ASTM D2202
Maximum tensile strength	: 1.7 N/mm ²	ASTM D412
Elongation at break	: 420 %	ASTM D412
Shore A hardness	: 26	ASTM C661
Low VOC compliance	: Yes	SCAQMD Rule 1168
VOC content	: 55.83 g/L	USEPA Method 24

FEATURES

- 100% neutral silicone
- Excellent bonding on polycarbonate
- No discoloration to polycarbonate
- Permanently flexible
- Indoor and outdoor use

APPLICABLE TEST / STANDARD

- VT-214 meets the requirements of:
- Low VOC - USEPA Method 24 under SCAQMD rule 1168

APPLICATION

Special for bonding and sealing of polycarbonate and other plastic sheet materials in roofing 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. It is suitable for both indoor and outdoor applications.

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

1. Cut the cartridge tip carefully.
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.

CLEAN UP

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



VITAL TECHNICAL SDN. BHD.

Technical Data Sheet

VT-214 Polycarbonate Sealant



Issuance date: 27/07/16

Revision date: 06/11/20

Revision No.: 20-02

VT-214

Polycarbonate Sealant

- 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 (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:

- Structural glazing applications.
- Below waterline or permanent water immersion.
- Traffic areas subject to abrasion.
- Applications that requires the sealant to be painted.

CAUTION

Product releases methylethylketoxime during application and curing. May cause an allergic skin reaction. Causes serious eye irritation. Avoid breathing vapours. Wash hands thoroughly after handling. Wear protective gloves and eye protection. IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing. If skin irritation or a rash occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Keep out of reach of children. 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.