Issuance date: 28/07/2016 **Revision date: 03/07/2026** **Revision No.: 26-03**

VT-629/ 629S Fire Rated Hybrid Sealant

MS Fire Rated Sealant

APPEARANCE
Non-sag thixotropic paste

STANDARD COLOR
(W10) White
(G10) Grey

TACK-FREE TIME
20 – 60 minutes
(at 25°C & 50% R.H.)

FULL CURE
7 days

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 around 25°C

APPLICATION TEMPERATURE
5 °C – 40 °C

SERVICE TEMPERATURE
-20 °C – 90 °C

DESCRIPTION

VT-629 Fire Rated Hybrid Sealant is a single-component, moisture-curing elastomeric joint sealant based on advanced MS Polymer technology that provides movement capability in fire rated joint applications. It is compliant with fire rating specification of BS EN 1366-4:2021. It can be painted over with common industrial paints; sealant bead will not shrink after cured; and the isocyanate-free formulation makes it possible to work on damp surfaces and will not have air bubbling issue. Even without primer, adhesion on various substrates is excellent. It is formulated to meet the low VOC regulation.

TECHNICAL DATA

Curing System	: Moisture Curing	
Specific Gravity	: 1.62 g/mL	
Tensile Strength	: ⩾1 .0 N/mm²	ASTM D 412
Elongation at Break	: ⩾ 200%	ASTM D 412
Movement Capability	: ±25%	ASTM C719
Shore A Hardness	: ⩾ 25	ASTM C661
Cure Depth (24 hours) at 23°C, 50% humidity	: Approx. 3mm	

FEATURES

- 4 hours fire rating
- Bomba Fire Stop Certified
- ASTM C920 compliant
- ±25% movement capability
- Good UV resistance
- Low static charge – Less dirt streaking
- Paintable
- Damp surface bonding
- Isocyanate-free – No air bubbling
- Solvent-free – No shrinkage
- Primerless bonding to most surfaces
- Not containing any halogenated materials

APPLICATION

Recommended for sealing all building and construction joints and is used to provide fire protection to gap and movement joints. It is used for sealing interior and exterior movement joint where a fire rating of up to 4 hours is required in precast and in-situ concrete, expansion and construction joint, tilt-up construction, brick and blockwork, fibre cement board, plasterboard, underground tunnel, etc.

APPLICABLE TEST / STANDARD

VT-629 meets the requirements of:

- RoHS I, RoHS II & SVHC
- BS EN 1366-4:2021 Fire resistance tests for service installations - Linear joint seals
- AS 1530.4:2014 Methods for fire tests on building materials, components and structures - Part 4: Fire-resistance test for elements of construction
- Low VOC – USEPA Method 24 under SCAQMD Rule 1168
- ASTM C920, Type S, Grade NS, Class 25, Use NT, A & M

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VT-629

Fire Rated Hybrid Sealant

PREPARATION

- Substrate surface must be dry and clean; free of dirt, grease, oil, or standing water.
- Use the two-cloth method to clean if surface is dirty.
- For a neat finishing, use masking tapes and remove it within the working time.
- 602 Primer is recommended especially 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:

1. Cut the cartridge tip carefully.
2. Puncture the internal aluminium foil inside with the nozzle.
3. Cut the nozzle into an appropriate diameter at an angle of approximately 45° to 60°.
4. Use a caulking gun and 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.

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.

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** x **Z**) x 1.1] = ***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. Use in well ventilated areas.

LEGAL NOTES