



Code	Description	Size	Colour
60000	Toptec MS Sealant	290ml	White
60001	Toptec MS Sealant	290ml	Grey
60002	Toptec MS Sealant	290ml	Black
60022	Toptec MS Sealant	600ml	White
60021	Toptec MS Sealant	600ml	Grey
60020	Toptec MS Sealant	600ml	Black

Description

Toptec MS Sealant is a high performance MS sealant, with superior flexibility, which makes it ideal for expansion joints or joints subject to (high) movement. NZ UV resistant.

Characteristics

- Low VOC Content
- Superior flexibility
- High bond strength on nearly all surfaces
- Excellent adhesion and extrudability, even in adverse conditions
- High performance mechanical properties
- Odourless
- Resists mould growth
- No bubble formation within sealant, even in wet and humid conditions
- Primer-less adhesion on many substrates (except where water pressure may occur)
- Excellent weather resistance in all climates
- Colour stable and excellent UV resistance
- Paintable immediately after application with all water based paints (other systems should be tested)
- Free of iso-cyanates, solvents, halogens and acids

Technical Data

<i>Base:</i>	MS Polymer
<i>Consistency:</i>	Stable Paste
<i>Curing System:</i>	Moisture Cure
<i>Skin Formation: (20 °C/65% R.V.)</i>	Ca. 10min
<i>Curing Rate: (20 °C/65% R.V.)</i>	2mm/24h
<i>Hardness:</i>	25+/-5 Shore A
<i>Specific Gravity:</i>	1.45g/mL
<i>Temperature Resistance:</i>	-40 °C until +90 °C
<i>Elastic Recovery:</i>	>70%
<i>Movement Capability:</i>	+/- 25%

<i>Elasticity modulus 100%: (DIN 53504)</i>	0.36 n/mm ²
<i>Tear Strength: (DIN 53504)</i>	1,30N/mm ²
<i>Elongation at break: (DIN 53504)</i>	>900%

** This varies according to ambient conditions such as temperature, humidity, substrate etc*

Applications

- Expansion and connection joints in the building industry:
- Sealing of joints in prefabricated buildings, movement joints in high rise constructions,
- Sealing between window and door frames.
- Flexible joints in marine and automotive applications.
- Applications that should be painted with water based paints.

Shelf Life

15 months in unopened packaging in a dry and cool storage place at temperatures between +5°C and +25°C.

Surfaces

<i>Type:</i>	All usual building materials: stone, metal, PVC, pre-treated wood.
<i>Preparation:</i>	Clean, free of dust, grease. Toptec MS Sealant will stick to damp surfaces. A surface is considered wet when moisture transfer occurs from the substrate.
<i>Non-porous surfaces:</i>	Apply Gorilla® 696 Surface Activator before application of Toptec MS Sealant.
<i>Porous surfaces:</i>	Apply Gorilla® Primer 150 before application of Toptec Silicone Sealant.
<i>Powder-coated surfaces:</i>	Apply Toptec Express Cleaner or Holdfast® 696 Surface Activator.
<i>Lead or Brass substrates:</i>	A mechanical surface preparation (light sand) is recommended in conjunction with applying Gorilla® 696 Surface Activator.

Toptec recommends preliminary compatibility tests prior to application.

Joint Size

<i>Minimum Width:</i>	5mm
<i>Maximum Width:</i>	30mm
<i>Minimum Depth:</i>	5mm
<i>Recommendation:</i>	depth = ½ width, and use the appropriate size Gator® PEF Rod

Application

<i>Method:</i>	Manual or pneumatic caulking gun
<i>Application temperature:</i>	+1°C until +30°C
<i>Cleaning:</i>	Gorilla® Cleaner immediately after application and before curing
<i>Tooling:</i>	Tool with soapy solution before skin formation
<i>Repair with:</i>	Toptec MS Sealant

Application Limitations

- When painted with oxidative drying paints disturbances in the drying of the paints may occur.
- Toptec MS Sealant must not be applied to frost-bearing surfaces or if temperature will be below freezing.
- The suitability of this product, for each intended use, must be determined by the purchaser prior to acceptance.
- Pre-testing for adhesion is intended to eliminate potential field problems. This testing will aid in determining the proper surface preparation method.

- Toptec MS Sealant may be over-painted, however due to the large number of paints and varnishes we strongly recommend a compatibility test before application. The drying time of alkyd resin based paints may increase.
- Toptec MS Sealant should not be used as a glazing sealant.

Chemical Resistance

Good

Water
Aliphatic Solvents
Mineral Oils
Grease
Diluted Inorganic Acids and Alkalis

Poor

Aromatic Solvents
Concentrated Acids
Chlorinated Hydrogen's

Maintenance and Inspection of Weather-Tightness Sealant Joints

Applies to the following joint types:

- Linear joints
- Penetration seals

Inspection

Holdfast recommends that the first inspection of joints is done 6 months following application, followed by an annual inspection. Normally this inspection is combined with the inspection of the painting. The most effective is to judge the joints during a colder season as building materials shrink the most under low temperatures, resulting in the widest joints. This period is best to judge if the sealants are still able to cope with the pressure, and if detachments appear.

During inspection specifically pay attention to:

Detachments in facades of buildings can result into leakage. When leakage is noticed but the exact cause and location is unclear, the exact spot should be found by testing. We have two methods for this test:

- Test with a (garden) hose. With a hose the facade can be sprayed. While doing this we work downward towards above, while the inside is checked on water entering the building. When no leakage is found this way, the possibility exists the leakage will only appear when rain and wind pressure are combined at the same moment.
Wind pressure causes over pressure on the outside while under pressure on the inside appears. This can cause water to be sucked inside through very small openings. With higher building the water can be pushed up and find its way into buildings.
- Test with a smoke pipe. With a smoke pipe possible leakages can be identified more easily, especially when wind pressure occurs.

Health and Safety Recommendation

- Apply the usual industrial hygiene
- Please refer to the MSDS for more detailed information.

Remark

The directives contained in this documentation are the result of our experiments and of our experience and have been submitted in good faith. Because of the diversity of the materials and substrates and the great number of possible applications which are out of our control, we cannot accept any responsibility for the results obtained. In every case it is recommended to carry out preliminary experiments.

If any clarification is required, please contact 0800 TOPTEC or email sales@toptec.co.nz

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