

SG300

One Part, High Performance, Neutral Cure Structural Silicone Sealant

PRODUCT DESCRIPTION

SG300 is a versatile, high performance silicone sealant which reacts with atmospheric moisture to produce a flexible silicone rubber, ideal for a wide variety of general purpose joint sealing glazing applications. Capable of taking extension, compression, transverse and longitudinal movements, SG300 resists severe environmental conditions such as wind loading, wind driven rain, snow and sleet, and is impervious to acid rain, ozone, ultraviolet light and extreme temperature variations.

USAGE/PURPOSE

The high modulus and outstanding physical properties of SG300 allow for sealing a wide variety of demanding applications, such as:

- Curtain walling, included cap, toe, heel and air seals
- General sealing/jointing
- Silicone structural glazing in 2 sided and 4 sided systems*
- A weather seal in butt (2 sided) and stopless (4 sided) glazing systems
- Joint within curtain/window systems

* All structural glazing applications must be reviewed and approved by Tremco. Contact your local Tremco Representative for more information.

FEATURES & BENEFITS

- Meets the requirements of ASTM C1184- Standard Specification for Structural Silicone Sealants.
- Exceptional weather resistance including UV and ozone exposure with an anticipated service life of 30 years.
- Movement capability of 25%.
- Good adhesion without a primer to most common substrates.*
- High adhesion strength.
- Excellent gunnability through wide temperature range.
- Stable curing system, which assures product reliability.
- Quick skin formation.

* Consult Tremco Technical Services for further information.

PACKAGING

600ml Sausages - 20 per box

COLOURS

Black



SHELF LIFE

12 months when stored as recommended in original unopened packaging.

STORAGE

Store in a dry cool place in original unopened packaging between +5°C and +25°C.

SPECIFICATION CLAUSE

The structural silicone is specified as Tremco's SG300, a versatile, high performance silicone sealant which reacts with atmospheric moisture to produce a flexible silicone rubber.

LIMITATIONS

SG300 is not recommended for:

- Permanent immersion.
- Use on materials where migration of constituents can take place (e.g. certain rubbers).
- On applications over tars, asphalt or materials that bleed oil, plasticisers or solvents.
- Use where abrasion or physical abuse will be encountered (e.g. trafficable joints).
- Over painting.
- In exterior below ground applications.

TYPICAL PHYSICAL PROPERTIES

PROPERTY	TEST METHOD	TYPICAL VALUES
Skin Time	@ 23°C, 50% R.H.	8 - 10 Minutes
Tack Free Time	@ 23°C, 50% R.H.	<2 Hours
Hardness (Shore A)	EN ISO 868	40
Specific Gravity	EN ISO 1183-1	1.34
Cure Rate	N/A	7-14 Days, for a 6mm bead
Sag	N/A	0 mm
Tensile Strength	DIN 53 504	2 MPa
Modulus at 100% Elongation	EN ISO 8339	0.8 - 1.0 MPa
	DIN 53 504	340%
Elongation at Break	EN ISO 8339	130%
	ASTM D709	25%
Movement Capability	ASTM D709	25%
Application Temperature	N/A	+5°C to +35°C
Service Temperature	N/A	-40°C to +150°C

*Drying times will vary depending on ambient temperature and relative humidity

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- ❑ In horizontal traffic joints.
- ❑ In applications in airtight enclosures as the sealant requires atmospheric moisture to cure.
- ❑ On sensitive substrates (e.g. marble, architectural stones, etc.) without prior testing for staining.
- ❑ Only black silicones are recommended for structural glazing.

SUBSTRATE PREPARATION

- ❑ Substrates for every structural silicone glazed project should be submitted for adhesion and compatibility testing by Tremco prior to commencement of glazing. The surface preparation (cleaning method and primer if required) for each structural glazing project will be recommended based on production run sample substrates supplied by the customer and based on laboratory testing performed by Tremco.
- ❑ Joint interfaces must be clean, dry, and free from any foreign matter prior to sealant application. Metal, glass and other non-porous surfaces should be wiped clean with a solvent dampened clean cloth, followed immediately by a dry wipe with a clean, lint-free cloth before the solvent evaporates (i.e. 2 rag method). Preferred solvent is Tremco's IPA Cleaner. Follow all precautions on label during handling of solvent. A trial application of the solvent is recommended to ensure there is no adverse reaction with the substrate.

PRIMING

Some substrates with special surface characteristics, finishes, or coatings may require a primer to optimise adhesion performance.

- ❑ For structural glazing, the priming requirement will be established by Tremco during testing.
- ❑ For façade seals, Tremco recommends the following primers if a primer is necessary:
 - Non-Porous substrates i.e. metal, plastic - TREMprime SG010 Primer
 - Porous substrate i.e. concrete, stone - TREMprime Porous Primer

METHOD OF APPLICATION

- ❑ Ensure that the backer rod is friction fitted properly or bond breaker tape has been installed and any primers required have been applied.
- ❑ Slide the sealant into the applicator gun, cut off the very end of the sealant packaging and fit the gun with the nozzle that has been cut to deliver the right bead size.
- ❑ Extrude the SG300 sealant into the joint, ensuring that no air is trapped in the joint.
- ❑ Fill the joint completely with a proper width-to-depth ratio (2:1), and tool to ensure intimate contact of sealant with joint walls.
- ❑ Tooling the sealant is recommended immediately after the application of the sealant. Dry tooling is always preferred. For a cleaner finish, mask the sides of the joint with tape prior to filling.
- ❑ Should masking be required to prevent contamination of adjacent surfaces, it is recommended that the masking tape be removed immediately after tooling and before the sealant sets.
- ❑ All structural applications should be undertaken in strict accordance with the information contained within Tremco's Structural Glazing Manual Consult Tremco for further information.

JOINT DESIGN CONSIDERATIONS

- ❑ For structural glazing application (i.e. tensile bead), please contact Tremco for more information on prior testing that is recommended to be conducted prior to actual installation of SG300.
- ❑ Joint design to be in accordance with ISO 11600 and BS 6093.
- ❑ For the purpose of joint width calculation in BS 6093 the MAF of SG300 is 25%.
- ❑ Width to depth ratio should be 2:1 subject to a minimum depth of 10mm on porous substrates and 6 mm on non-porous substrates.
- ❑ Sealant width not be less than sealant depth.

- ❑ For fillet joints the minimum bite should be 10 mm for porous substrates and 6 mm for non-porous substrates.
- ❑ In movement joints, back fill the joint with polyethylene joint backing in order to control the depth of sealant and prevent three-sided adhesion.

CLEAN UP

Cleaning of all tools, etc. can be accomplished with Tremco's IPA Cleaner while the sealant is in uncured state. On non-porous surfaces; immediately remove all excess sealant and smears adjacent to the joint with one of the above solvents. On porous surfaces; allow the unwanted sealant to develop initial cure and then remove the sealant by abrasion or other mechanical means.

HEALTH & SAFETY PRECAUTIONS

- ❑ Use in well ventilated conditions and ensure all recommended protective equipment is worn during handling and use of this product.
- ❑ The Safety Data Sheet (SDS) must be read and understood prior to use.

TECHNICAL SERVICE

Tremco CPG Australia Pty Ltd has a team of Representatives who provide assistance in the selection and specification of products. For more detailed information or service and advice, call Customer Service on (02) 9638 2755 or fax (02) 9638 2955.

GUARANTEE/WARRANTY

Tremco CPG Australia Pty Ltd products are manufactured to rigid standards of quality. Any product which has been applied (a) in accordance with Tremco CPG Australia written instructions and (b) in any application recommended by Tremco CPG Australia, but which is proved to be defective, will be replaced free of charge.

Any information provided by Tremco CPG Australia in this document in relation to Tremco CPG Australia's goods or their use is given in good faith and is believed by Tremco CPG Australia to be appropriate and reliable. However, the information is provided as a guide only, as the actual use and application will vary with application conditions which are beyond our control. Tremco CPG Australia makes no representation, guarantee or warranty relating to the accuracy or reliability of the information and assumes no obligation or liability in connection with the information. To the extent permitted by law, all warranties, expressed or implied are excluded.

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