

SWS*

Silicone Weatherproofing Sealant

Product Description

SWS weatherproofing sealant is a single-component, neutral cure silicone, which is an excellent candidate for use in new or remedial weathersealing applications. SWS exhibits negligible change in physical properties after weathering and upon cure, becomes a low-modulus, formed-in-place durable rubber building joint & glazing sealant.

Key Features and Typical Benefits

Performance

- **Silicone Durability**—Cured silicone rubber exhibits excellent long-term resistance to natural weathering, including: ultraviolet radiation, high and low temperatures and rain and snow, with little change in elasticity.
- High Performance—SWS offers the durability of a true silicone sealant but at an economical price level similar to lesser-performing sealant types.
- ±50% Movement Capacity—Can accommodate 50% movement in both extension and compression and has excellent recovery after cycling.
- Primerless Adhesion—To many substrates and finishes. May be considered a candidate for use with the following materials: glass, polycarbonate, vinyl, plastics, wood, painted & anodized aluminum, brick, terra-cotta, ceramic and porcelain materials, concrete and natural stones. Some finishes or substrates may require a primer.

Application

- Good Workability—Temperature stable paste which is easily gunned and tooled under hot and cold conditions.
- Extended Work Life—Designed to allow sufficient time for placement and tooling before skinning.

Potential Applications

SWS is an excellent candidate to consider:

- As a weatherproofing material when sealing between dissimilar or similar materials in either new or remedial glazing and sealing applications, window perimeters and punched openings.
- For sealing to precast concrete, site cast concrete and tilt-up concrete joints.
- As a general purpose sealant for seams and curtainwall frames, screw heads, back pans, etc.

SWS is not:

- · For use in structural glazing applications.
- For use in food contact applications.
- For use in applications where the product will be in continuous contact with water.
- Paintable (except when using SilShield* 2400 or Optic* 2401 silicone elastomeric coating).
- $\bullet\,$ For use on wet, damp, frozen or contaminated surfaces.

Packaging

SWS is available in 10.1 fl. oz. (299 ml) plastic caulking cartridges and 20 fl. oz. (591 ml) foil sausage packs.



Colors

SWS is available in standard colors:



Typical Physical Properties

Typical property values of SWS as supplied and cured are set forth in the tables below. Typical product data values should not be used as specifications. Assistance with specifications is available by contacting Momentive Performance Materials.

Typical Properties - Supplied

Property	Value ⁽¹⁾	Test Method
Consistency	Paste	
Polymer	100% Silicone	
VOC	1.20 wt.%	WPSTM C1454
Tooling Time	30-40 minutes	
Tack Free Time (@ 72°F/22°C, 50% RH)	3-4 hours	ASTM C679
Sag/Slump	0.1" max (2.5 mm)	ASTM D2202

Typical Properties — Cured⁽¹⁾

Property	Value ⁽¹⁾	Test Method
Hardness, Type A Indenter	22	ASTM D2240
Tensile at 25%	19.3 psi (0.13 MPa)	ASTM C1135
Tensile at 50%	30.6 psi (0.21 MPa)	ASTM C1135
Peel Strength (21-day cure @ 72°F/22°C) 50% RH)	>45 pli	ASTM C794
Movement Capability	±50%	ASTM C719
Service Temperature Range (after cure)	-55°F to +250°F (-48°C to 121°C)	
Application Temperature Range	+40°F to +122°F (4°C to 50°C)	
Cure Time (1/4" or 6 mm deep section) @ 72°F/22°C 50% RH	2-3 days	
Full Cure (most common bead sizes)	7-10 days	

(1) Typical properties are average data and are not to be used as or to develop specifications.

Installation

Sealants may not adhere or maintain long-term adhesion to substrates if the surface is not prepared and cleaned properly before sealant application. In all cases the applicator must confirm the acceptability of each sealant-substrate combination with a site adhesion test prior to proceeding with project installation. A GE sealant primer may be selected to enhance sealant bonding on some difficult to adhere to substrates. MPM can provide information and suggestions to user upon request.

Surface Preparation

Glass, Metals Paints, Smooth Surfaces, etc.

- Smooth surfaces can be wiped clean using a rag dampened with a cleaning solvent (Isopropyl Alcohol is typically useful). Proceed by cleaning the surfaces using a rag wetted with solvent and immediately use a second clean rag to wipe the wet solvent from the surface before it evaporates. Repeat this procedure as necessary until no contaminants are visible on the second cleaning rag.
- Rough surfaces such as concrete, brick and masony can be cleaned by wire brush, mechanical abrading, grinding or a combination of these methods to provide a stable clean surface for sealant application. Secondly, follow this with an air blow or brush (soft-bristled) to remove dust.
- All surfaces that are to receive sealant must be clean, dry and free of contaminants (such as moisture/frost, oils, concrete form release agents, old sealants, asphalt and other surface treatments, etc.) to allow for optimal adhesion.



Masking

Masking tape can be, if desired, to ensure a neat job and to protect adjoining surfaces from over-application of sealant. Masking tape should be removed immediately after tooling the sealant and before the sealant begins to skin over (tooling time).

Joint Designs and Dimensions

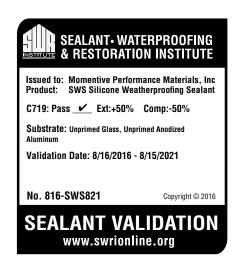
Joint Movement - All moving joints should be designed so as not to allow three-sided adhesion of the sealant to occur. Three-sided adhesion hinders the ability of the sealant to extend and compress freely as desired and can lead to early joint failure (reference ASTM C1193 Standard Guide for Use of Joint Sealants).

Joint Width - Designed joint width must be at least 2X the total anticipated joint movement. A minimum width of $^{1}/_{4}$ " (6.35mm) is recommended in all applications and the recommended sealant profile is an hourglass shape with the depth of the sealant over the crown of the backer rod between $^{1}/_{8}$ " (3.175mm) and $^{3}/_{8}$ " (9.525mm).

Applicable Standards

SWS meets or exceeds the requirements of the following specifications: **American Society for Testing & Materials International**.

C920 Standard Specification for Elastomeric Joint Sealants;
 Type S, Grade NS, Class 50, Use A, G, M, O.



Technical Services

Additional technical information, literature, laboratory testing and application engineering may be available upon request from MPM. Any technical advice furnished by MPM or any representative of MPM concerning any use or application of any MPM product is believed to be reliable but MPM makes no warranty, expressed or implied, of suitability for use in any application for which such advice is furnished.

Limitations

Customers must evaluate MPM products and make their own determination as to fitness of use in their particular applications.

Patent Status

Nothing contained herein shall be construed to imply the nonexistence of any relevant patents or to constitute the permission, inducement or recommendation to practice any invention covered by any patent, without authority from the owner of the patent.

Product Safety, Handling and Storage

Customers considering the use of this product should review the latest Safety Data Sheet and label for product safety information, handling instructions, personal protective equipment if necessary, and any special storage conditions required. Safety Data Sheets are available at www.siliconeforbuilding.com or, upon request, from any MPM representative. Use of other materials in conjunction with MPM sealants products (for example, primers) may require additional precautions. Please review and follow the safety information provided by the manufacturer of such other materials.



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