



SilGlaze* II SCS2811-D1

Silicone Backbedding Sealant

Product Description

SilGlaze II SCS2811-D1 silicone backbedding sealant is a one-part, neutral, very fast cure, high modulus silicone sealant that develops significant green strength in the early cure hours. SilGlaze II SCS2811-D1 silicone backbedding sealant may be an excellent candidate for use as a bedding seal in the construction of residential and commercial doors and windows.

Key Features and Typical Benefits

- **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 negligible change in elasticity.
- **Primerless Adhesion**—May be considered a candidate for use with numerous construction-related materials, including: glass, polycarbonate, vinyl, numerous plastics, treated and untreated wood, fluoropolymer and powder coated paints, and other coated aluminum finishes. Some finishes or substrates may require a primer.
- **Fast Green Strength**—Proprietary patented technology develops green strength in the first 24 hours faster than most other single-component fenestration sealants. SCS2811-D1 sealant can attain 18-20 psi in 5 hours and up to 40-50 psi after 24 hours in some designs.
- **±25% Movement Capacity**—Can accommodate 25% movement in both extension and compression.
- **Standard Equipment**—SilGlaze II SCS2811-D1 sealant is easily dispensed using common pumping equipment. Heating of this product is not necessary.
- **Excellent Processability**—The low pumping viscosity and high application rate of SilGlaze II SCS2811-D1 sealant provides for longer pump life with reduced maintenance on equipment and faster with easier tooling effort.
- **Easy Repairs**—The traditional silicone rubber properties of SilGlaze II SCS2811-D1 sealant allows for frames or components to be easily deglazed as would be expected from silicone materials.
- **Product Chemistry**—Neutral cure.

Potential Applications

- SilGlaze II SCS2811-D1 sealant may be used for in-shop window fabrication as a bedding bead or for cap, toe, heel head applications and for general purpose sealing.

Packaging

SilGlaze II SCS2811-D1 sealant is available in 5 gallon pails containing 40.0 lbs. /18.1 kg or 55 gallon fiber drums containing 450.0 lbs. / 204.1 kg with a polyethylene bag liner.

Colors

SilGlaze II SCS2811-D1 sealant is translucent.

Typical Physical Properties

Typical property values of SilGlaze II SCS2811-D1 sealant as supplied and cured are set forth in the tables below. Typical product data values should not be used as specifications.

Typical Properties – Supplied

Property	Value ⁽¹⁾	Test Method
Consistency	Paste	
Polymer	100% silicone	
VOC	<34 g/l	WPSTM C1454
Work Life (tooling time)	5-10 minutes	
Tack Free Time	15 minutes (@ 72°F, 50% RH)	ASTM C679
Sag/Slump	0.1" max.	ASTM D2202

Typical Properties – Cured

(after cure of 21 Days at 23°C (73°F) & 50% Relative Humidity)

Property	Value ⁽¹⁾	Test Method
Hardness, Durometer (Type A Indentor)	24	ASTM D2240
Ultimate Tensile Strength	284 psi (1.95 MPa)	ASTM D412
Ultimate Elongation	415%	ASTM D412
Peel Strength (average) (21-day cure @ 75°F (21°C) 50% RH)	34 pli	ASTM C794
Joint Movement Capability	±25%	ASTM C719
Service Temperature Range (after cure)	-55°F to +300°F (-48°C to 149°C)	
Weathering and U.V. Resistance	Excellent	GE 20 yr. study
Cure Time (¹ / ₄ " or 6 mm deep section) @ 75°F (24°C) 50% RH	<24 hours	
Full Cure (most common bead sizes)	3-4 days	

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

Installation

IN ALL APPLICATIONS IT IS IMPORTANT TO CONFIRM THE ACCEPTIBILITY OF EACH SEALANT-SUBSTRATE COMBINATION WITH AN ADHESION TEST PRIOR TO PROCEEDING WITH USE.

Surface Preparation

SilGlaze II SCS2811-D1 sealant has been formulated to develop adhesion to most materials commonly used in the manufacturing of commercial glazing constructions including: glass, vinyl extrusions, fluoropolymer, acrylic, and polyester paints, powder coated aluminum, and numerous plastic materials. Sealants may not adhere to these substrates or less than optimal adhesion may result if the surface is contaminated. Foreign materials such as, but not limited to, dirt, dust, oils and water and other contaminants particular to certain substrates including machine oils, water repellants, lubricants, waxes on painted surfaces, salt deposition on anodized surfaces can and may interfere with development of adhesion.

Momentive Performance Materials can provide, upon request, laboratory testing services to evaluate the adhesion and compatibility of its sealants to submitted substrates. This testing can provide information on adhesive bonding quality to individual substrates and direction to the user on how adhesion may be improved through modification of the substrate surface properties by special cleaning and/or priming procedures. Momentive Performance Materials can also provide upon request technical information including specific cleaning procedures and priming recommendations for the customer to evaluate. Momentive Performance Materials does not provide joint design services.

Users of this material are strongly advised to conduct their own testing to determine if the adhesion to the desired substrate is satisfactory for their needs. It is also recommended that the user conduct periodic quality control testing on their substrates and sealant during the course of using them in manufacturing operations to maintain a continued assurance that substrate, sealant or other conditions that could affect adhesion have not changed and that adhesion requirements are being met.

Sealant Application

- Begin by installing backup material for joint or joint filler, setting blocks, spacer shims and tapes as needed.
- In a continuous operation, apply SilGlaze II SCS2811-D1 sealant horizontally in one direction and vertically from the bottom to the top of the joint opening.
- Apply the sealant with a positive pressure by pushing the bead ahead of the nozzle and making sure that the entire cavity is filled sans air pockets or voids.
- Tooling should be done neatly, forcing the sealant into contact with the sides of the joint or cavity, thus helping to eliminate any internal voids and assuring good substrate contact.
- Due to the smooth consistency of SilGlaze II SCS2811-D1 sealant tooling agents such as water, soap or detergent solutions are not necessary or recommended. Dry tooling is recommended.
- For cap bead glazing the sealant applied to the sill should be tooled in such a fashion to prevent pooling of precipitation and cleaning solution.
- Sealant should only be applied to surfaces that are clean, dry and free of frost.

Cleaning of Excess Sealant

- For glass, metal, and plastic surfaces uncured excess material can be removed using a solvent. Use care when using solvents on plastic materials as some solvents can soften some plastics.
- For glass, metal, and plastic surfaces cured excess material can be removed using a blade by scraping or cutting.

Installation—continued

Cleaning of Excess Sealant—continued

- If excess material unintentionally contacts the surfaces of porous materials, the sealant is best allowed to progress through the initial cure or set-up and then mechanically removed by abrasion or other suitable means.

Method of Application

SilGlaze II SCS2811-D1 sealant is easily dispensed directly from pails and drums with standard single component pumping equipment.

SilGlaze II SCS2811-D1 sealant meets or exceeds the requirements of the following standards and/or specifications:

Applicable Standards

American Society for Testing & Materials International

- ASTM C920 Standard Specification for Elastomeric Joint Sealants; Type S, Grade NS, Class 25, Use A, G, O

U.S. Federal Specifications:

(Widely referenced but cancelled Sept. 1996)

- TT-S-001543A Sealing Compound: Silicone Rubber Base (for Caulking, Sealing & Glazing in Buildings and Other Structures)
- TT-S-00230C Sealing Compound: Elastomeric Type, Single Component (for Caulking, Sealing & Glazing in Buildings and Other Structures)

American Architectural Manufacturers Association

- AAMA 802.3-92 Back Bedding Glazing Compound, Type 1
- AAMA 802.3-92 Back Bedding Glazing Compound, Type 2
- AAMA 805.2-92 Back Bedding Glazing Compound, Group C
- AAMA 808.3-92 Exterior Perimeter Sealing Compound

Technical Services

Additional technical information and literature may be available from Momentive Performance Materials. Laboratory facilities and application testing are available upon request from Momentive Performance Materials. Any technical advice furnished by Momentive Performance Materials or any representative of GE sealant concerning any use or application of any sealant is believed to be reliable but Momentive Performance Materials makes no warranty, express or implied, of suitability for use in any application for which such advice is furnished.

Limitations

Customers must evaluate Momentive Performance Materials (MPM) products and make their own determination as to fitness of use in their particular applications.

SilGlaze II SCS2811-D1 sealant is not recommended:

- For use underwater or in other applications where the product will be in continuous contact with water.
- For use in food contact applications.
- When painting of the cured sealant is desired (unless appropriate specialized paint products are used).
- For adhesion on bare metals or surfaces subject to corrosion (*i.e.*, mill aluminum, bare steel, etc.).

SilGlaze II SCS2811-D1 sealant should not be applied or used:

- In structural glazing applications.
- On wet, damp, frozen or contaminated surfaces.
- In cavities or designs where the cure depth exceeds 1/2".

Precautions

- This material requires atmospheric moisture to cure from paste to rubber and may not attain its listed final cured rubber properties when used in designs or applications where the silicone is encapsulated and without access to atmospheric moisture.
- Maximum cure depth from an air interface should not exceed 3/8". When used in colder less humid environments, cure depth should not exceed 1/4" from an air interface.
- When used in glass-to-glass butt joints, use caution to completely fill the joint as air pockets or bubbles can become entrapped in the sealant which may be visible through the sealant.
- May stress craze polycarbonate in some 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.

Technical subject matter in this publication is described and protected by one or more pending US patent applications and foreign counterparts.

Product Safety, Handling and Storage

Customers considering the use of this product should review the latest Material Safety Data Sheet and label for product safety information, handling instructions, personal protective equipment if necessary, and any special storage conditions required. Material Safety Data Sheets are available at www.ge.com/silicones 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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