

Cool-Sil™ SG Silicone

100% Silicone



OVERVIEW & FEATURES

Cool-Sil SG is a spray grade silicone rubber fluid-applied roof system that is solvent-free, high solids, one-component and moisture-curing. This system is designed to restore existing aged smooth surface BUR, granulated cap sheets, single-ply membranes and metal roofs. It can also be used as a repair material for maintenance applications.

Cool-Sil provides excellent UV resistance, adhesion, and breathability, and has exceptional waterproofing properties. It is easily spray-applied.

Sprayable - Cool-Sil SG spray-applied application reduces labor and time to complete projects.

Protective - Cool-Sil SG provides long-term protection because it resists weathering, aging, oxidation, rain and snow, the effects of ozone, ultraviolet radiation and temperature extremes typically found on roofs.

Durable - With its high solids content and absence of hydrocarbon solvents, Cool-Sil provides a thick and durable, mold and mildew resistant roof covering that performs in a wide temperature range in the most severe climatic conditions.

This product may contribute toward a variety of LEED credit points.

PREPARATION

Conduct a moisture survey prior to roof restoration and make any necessary repairs, including removal of any wet insulation and roofing materials, replacing with like materials. Allow repairs to cure completely. Confirm local water run-off ordinances and restrictions prior to cleaning. Carefully power-wash all surfaces with greater than 2,000 psi pressure to remove debris, rust, scale, dirt, dust, chalking, peeling or flaking coatings, etc. Do not force water into the roof system or damage roof surfaces. Wearing personal protective clothing and equipment, remove algae, mildew, or fungus with Simple Green Oxy Solve, scrubbing with a push broom scrub brush. Rinse at least twice to be sure all cleaning agents and contaminants are completely removed to prevent adhesion issues. If the roof surface becomes contaminated with dirt, dust, or other particles at any time during the application of the Cool-Sil system, cleaning measures must be taken to restore the surface to a suitable condition.

SPRAY REQUIREMENTS

A high-pressure spray unit capable of producing a minimum of 3,500 psi at the spray gun head. The pump should have a minimum of 3 gallons per minute output rate. Hoses should be a BUNA-N jacket for prevention of moisture and should have a minimum I.D. of 3/4". The spray gun should be high pressure (5000 psi) with reverse-a-clean spray tip, having a minimum orifice of 0.30.

Graco's 933 Hi-Flo model for large projects or Graco's DUTYMAX GH 675di for small projects and cut-in are the recommended spray equipment.

APPLICATION

Refer to the Cool-Sil Restoration Application Guides (single-ply, modified bitumen, or metal) for complete substrate-specific repair, preparation and application requirements.

PRECAUTIONS

- In accordance with Garland's adhesion testing protocol, ensure that the coating bond strength to the existing roof substrate(s) is two (2) pounds per linear inch (pli) or greater
- Storage temperatures should be between 60-80°F (15.6-26.7°C) and not exceed 110°F (43.3°C). Indoor ventilated storage is recommended. Ensure job site storage is in a shaded and ventilated area. Do not store in direct sunlight.
- Coverage rates vary depending on warranty and substrate.
- Restrict coating application when the ambient temperature is not at least 50°F (10°C) and rising or when overnight temperature drops below 40°F (4.4°C).
- Restrict coating application when the ambient temperature is greater than 95°F (35°C).
- Roof surface must be at least six (6) Fahrenheit degrees or three (3) Celsius degrees above the dew point and rising.
- In areas where the roof is subject to foot traffic, it is recommended to apply a granule non-skid walkway surface.
- Excess water on a Cool-Sil roof can cause the roof to become slippery.
- Not intended to be installed over an asphalt glaze coating.
- Coverage rates may vary based on surface condition/texture and do not take into account material loss due to spraying, surface texture, surface absorption, waste, etc.

For more information, visit us at: www.garlandco.com

The Garland Company, Inc.
3800 East 91st Street
Cleveland, OH 44105
FAX: 216-641-0633
Phone: 216-641-7500
Toll Free: 800-321-9336

Garland Canada Inc.
209 Carrier Drive
Toronto, Ontario
Canada, M9W 5Y8
FAX: 416-747-1980
Phone: 416-747-7995
Toll Free: 800-387-5991
(Only in Canada)

Tests verified by independent laboratories. Actual roof performance specifications will vary depending on test speed and temperature. Data reflects samples randomly collected. ± 10% variation may be experienced. The above data supersedes all previously published information. Consult your local Garland Representative or the home office for more information.

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Technical Data	Cool-Sil SG
Color	Standard White and Gray
Solid Content Volume (ASTM D2369)	92% (+/-3)
Tack-Free Time	1-2 hours
Cure Time	1-4 hours
Durometer Hardness Shore A (ASTM D2240)	37
Tensile Strength (ASTM D412)	250 psi
Temperature Stability Range	-35°F to 212°F (-37°C to 100°C)
Elongation (ASTM D412)	237%
Permeability* (ASTM E108)	11 perms
Accelerated Weathering QUV, 5,000 hours (ASTM G154)	No Degradation
Flash Point (ASTM D-4206)	>140°F (60.6°C)
Low Temperature Flexibility (ASTM D522)	-50°F (-45.6°C)
Shelf Life	24 months, unopened and stored between 60°F and 80°F (15.6°C and 26.6°C)
Packaging	55 gallon drum (208.2 L)

*20 mils at 100°F (38°C) and 90% relative humidity

Eco-Facts	Cool-Sil SG	
VOC	<50 grams/liter	
	Initial	Aged
Solar Reflectance* (ASTM C1549)	0.89	0.73
Thermal Emittance* (ASTM C1371)	0.90	0.90
SRI Value*	113	90

*Reflectance, emittance, and SRI values are for white color only.

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