



Silicone Roof Coating

Product Data Sheet

Single Component, Ultra High Solids, Liquid Applied Silicone Roof Coating

PRODUCT DESCRIPTION

silicone roof coating is a high performance protective barrier for a variety of architectural surfaces and roofing substrates. Upon cure, silicone roof coating forms a durable, breathable, monolithic weatherproof roofing membrane that is highly resistant to degradation from Ultraviolet (UV)/Infrared (IR) and natural weathering.

Uses

For structurally sound roofing applications including over existing coatings, single ply, modified bitumen and BUR, spray polyurethane foam, low and steep sloped metal, and other horizontal and vertical substrates. All substrates require an adhesion test. Consult technical services for proper technique.

APPROVALS / STANDARDS

- **ASTM D6694**
Standard Specification for Liquid-Applied Silicone Coating Used in Spray Polyurethane Foam Roofing Systems. Result: Pass
- **UL 790**
Flammability Characteristics-silicone roof coating carries Class "A" and Class "B" credentials as tested under UL 790 procedures. Refer to the UL directory for specific information.
- **ASTM E84** — Standard Test Method for Surface Burning Characteristics of Building Materials. Result: Class A
(Flame Spread Index 10, Smoke Developed Index 185).



CHARACTERISTICS/ADVANTAGE

- **Silicone Durability**
Cured silicone rubber exhibits excellent long-term resistance to natural weathering including extreme temperatures, ultraviolet radiation, rain and snow.
- **VOC Compliant**
high solid silicone has a solvent-free formulation. The VOC (Volatile Organic Compounds) content is well below the current limits of California's relevant Air Quality Management Districts.
- **Ease of Use**
silicone roof coating is a single component material that requires no mixing or separate components.
- **Versatile Application**
BLF 500 can be applied with high pressure spray equipment, roller or brush.
- **High Build Formulation**
Allows for single coat application and hangs on slopes without sagging.



TECHNICAL INFORMATION & TESTING

PRODUCT INFORMATION

Packaging	5 gal. (19 L) pai
Shelf Life	24 months (unopened container)
Color	White, Custom Colors available upon request

Property	Value	Test Method
Solids Content Volume	90	ASTM D1644-01
Skin-Over Time	40-45 minutes	WPSTM C-560
Viscosity	15,000 centipoises	ASTM D2196
Tensile Strength	174 psi (1.2 MPa)	ASTM D2370
Elongation	200%	ASTM D2370
Durometer Hardness Shore A	36	ASTM D2240
TVOC	<30 g/L	EPA Method 24
Solar Reflectance - Initial(2)	84%	ASTM C1549
Emittance - Initial(2)	85	ASTM C1371
SRI Value - Initial(2)	102	ASTM E1980
Solar Reflectance - Aged(2)	48%	ASTM C1549
Emittance - Aged(2)	81	ASTM C1371
SRI Value - Aged(2)	59	ASTM E1980
Permeance	8.2 perms	ASTM E96 (BW)
Tear Resistance	28 lbf/in.	ASTM D624
Low Temperature Flexibility	Pass	ASTM D522 (B)
Resistance to Wind-Driven Rain	Pass	TT-C-555B

APPLICATION INFORMATION

Coverage	1.5 gal./100 sq.ft - 24 mils wft 2.5 gal./ 100 sq.ft- 40 mils wft
Ambient Air Temperature	41 °F (5 °C) min. / 95 °F (35 °C) max.
Relative Air Humidity	80 % R.H. max.

Results may differ based upon statistical variations depending upon mixing methods and equipment, temperature, application methods, test methods, actual site conditions and curing conditions.



Installation

Refer to Design and Application Guide for surface preparation requirements, design information and detailed application instructions.

Surface Preparation

silicone roof coating can be applied to itself as well as a variety of roofing materials and substrates including: single ply membranes (TPO, PVC, EPDM, CSPE), spray-applied polyurethane foam (SPF), metal, concrete, common parapet/coping materials and asphaltic substrates such as modified bitumen (granulated or smooth) or BUR. Asphalt Bleed Blocker will aid in prevention of discoloration, "bleed through" or "tobacco staining", from oils wicking out of an asphaltic substrate). Surfaces to which silicone roof coating is to be applied must be clean, dry, structurally sound and free of loose particles, dirt, dust, oil, frost, mildew and other contaminants. Damage to the underlying roof system, such as cracks, openings, holes, etc. should be properly repaired prior to application. Saturated substrates must be removed and repaired appropriately. Users of silicone roof coating should verify that suitable adhesion can be attained to all existing roofing materials to be coated prior to large scale application of the coating.

Application Guidelines

silicone roof coating should be applied as received and dilution with solvent is not recommended. If settling in the package has occurred, gently stir the material immediately prior to use.

can be cleaned up before it has cured by wiping alternately with solvent and dry rags. Cured material can be removed from surfaces with a razor blade or scrubbed off with steel wool or synthetic abrasive pads and solvent. To control overspray, avoid spraying in winds that may cause drift. Care should be taken to avoid overspray onto adjacent building materials, vehicles, plants, etc. Surfaces not intended for coating should be masked or covered. silicone roof coating should be sprayed or rolled ensuring uniform build and thorough coverage and can be applied in one coat. If applying in multiple coats, allow adequate time between each coat for the coating to cure before applying additional coat.

Final cured film thicknesses must be free of voids, pinholes, cracks or blisters.

Application Temperature

silicone roof coating can be applied throughout the year as long as the substrates being coated are completely dry. Frost and/or moisture will interfere with adhesion. Lower temperatures will lengthen the skin over, tack free and ultimate cure time and may require an overnight cure in winter months to allow the top coat application to proceed (film build may not be sufficient to allow walk over). Higher temperatures will accelerate the cure rate and decrease the open time of the coating.

Surface application temperature ranges from 0°F (-17°C) to 120°F (48°C).

Application Equipment

silicone roof coating can be applied by spraying, rolling or brushing. silicone roof coating works with most commercially available spray application equipment that can maintain pressure of 3,300 psi at the tip while spraying 2 gallons per minute.

Contact spray equipment manufacturers for spray rig and tip sizes and hose recommendations.

For Bleed Blocker a 1/2" to 3/4" (12-19mm) nap roller cover is recommended. For BLF 500 silicone roof coating a 1 1/4" to 1 1/2" (32-38mm) nap roller cover, for use with coatings containing solvent is recommended.

When a squeegee is used back rolling is required. Other application tools include, but are not limited to: Wet mil gage, "chip" or paint brush, cigar rollers, roller frames, solvents (for clean-up), shears (for cutting fabrics) and any PPE required.

Uncured Product Storage

silicone roof coating should be stored in sealed containers in a dry area, out of direct sunlight and high heat. Do not open containers until ready for use and store containers at or below 90°F (32°C) to maintain full shelf life. silicone roof coating generally can be stored in unheated warehouses during colder months without the risk of freezing.

silicone roof coating reacts with atmospheric moisture to cure. Once containers are open and exposed to air a skin will form on the material over time. The formation of skin will be negligible in winter months but can form quickly



(minutes) under hot and humid conditions. Cured skin that has formed on the top of the material must be removed or screened from the bulk material, as it may contribute to pump clogging. Take appropriate precautions to cover open containers during use.

LIMITATIONS

silicone roof coating should not be considered for:

- Use on pedestrian, deck or frequent traffic bearing surfaces.
- Cold storage roofing application without vapor barrier, cryogenic tank applications, or continuous water immersion service.
- Unprepared surfaces including but not limited to those that are wet, dusty, oily, mildewed, heavily chalked, blistered or structurally unsound.
- Building materials that might wick oil or solvents.

These include, but are not limited to, certain vulcanized rubber products, tapes, failed sealants, some caulking compounds and asphaltic/mastic materials unless appropriate preparation or primers are used. Consult technical services for primer recommendations.

- Surfaces where adhesion has not been verified by testing.
- Inclement weather may negatively affect uncured silicone roof coating by displacement of uncured material; therefore, application of coating should not proceed if heavy rain, hail or snowfall is impending or expected within 1 hour of application. Note: In colder temperatures 1 hour may not be sufficient time to form a firm skin and become tack free.
- silicone roof coating requires atmospheric moisture to aide in curing. It is not suitable for use in unventilated spaces.