

DAVLIN ROOFSEAL® SILICONE TOP

Technical Data Sheet | High-Solids Silicone Roof Coating



TECHNICAL PRODUCT DATA

ASTM D-6694-01 | UL 790 Class A / B | Title 24 Compliant | CRRC / Energy Star

PRODUCT CHARACTERISTICS

DAVLIN ROOFSEAL® SILICONE TOP is engineered to maintain wet-film stability at elevated mil thicknesses, allowing for high-build application without pinholing, gassing, blistering, or cure inhibition when installed in accordance with manufacturer requirements.

The cured membrane remains flexible across a broad temperature range and resists degradation from prolonged UV exposure and environmental cycling.

The reflective white formulation is designed to reduce thermal stress on roof assemblies while supporting energy efficiency and long-term system performance.

PONDING WATER

The **ROOFSEAL® SILICONE TOP** membrane is not affected by continuous exposure to ponding water. However, the National Roofing Contractors Association considers ponding water undesirable on any roofing system and recommends positive drainage be incorporated into roof design where feasible.

FLAMMABILITY CHARACTERISTICS

ROOFSEAL® SILICONE TOP coatings carry Class "A" and Class "B" fire performance classifications as tested under UL 790 procedures over approved substrates. Refer to the UL directory or contact Davlin Coatings for specific assembly approvals and testing information.

MANUFACTURER INFORMATION

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Made in the USA | Designed by Davlin in California
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READY-TO-USE | HIGH-SOLIDS | MOISTURE-CURE

Fluid-applied silicone roof coating for properly prepared substrates

PRODUCT OVERVIEW

DAVLIN ROOFSEAL® SILICONE TOP is a ready-to-use, high-solids, solvent-free, single-component, moisture-cure, fluid-applied silicone roof coating. Once cured, it forms a seamless, fully adhered, breathable membrane that delivers exceptional resistance to weathering, ultraviolet exposure, and standing water. The system provides long-term elemental protection for a wide range of architectural and roofing substrates.

ROOFSEAL® SILICONE TOP is suitable for application over properly prepared surfaces including spray-applied polyurethane foam, single-ply membranes, metal roofing, concrete, masonry, and other compatible substrates in accordance with Davlin Coatings' published specifications.

SUITABLE SUBSTRATES

SPF

Single-Ply

Metal

Gravel

Smooth BUR

Mod. Bit

96%±2

SOLIDS BY VOLUME

<50 g/L

VOC

0.70

REFLECTIVITY

0.90

EMISSIVITY

110

SRI INITIAL

A / B

UL 790

REDUCE THERMAL-MECHANICAL STRESS AND SAVE ON ENERGY COSTS



Roofing Approved Technologies California Title 24 Compliant

APPLICATION EQUIPMENT

This product may be sprayed, brushed, or rolled. Due to the high viscosity of the material, a high-pressure airless paint pump capable of producing a minimum of 3500 PSI at the spray gun head should be used. The pump should have a minimum of 3 gallons per minute output and be fed by a 5:1 transfer pump to prevent cavitation. Always use components rated for pump pressure. Hoses should be BUNA-N jacketed for prevention of moisture contamination. Hoses should have a minimum I.D. of 3/4" and an adequate working pressure. The spray gun should be high pressure (5000 PSI) with reverse-a-clean spray tip, having a minimum orifice of .030 and a 50° fan tip.

DO NOT USE hose that has been used for acrylics or other waterborne coatings because the liner absorbs moisture and initiates the silicone cure process.

ROOFSEAL® SILICONE TOP is designed for high-build roller or spray application and maintains wet-film stability at elevated mil thicknesses when applied per manufacturer requirements.

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PROPERTIES / SPECIFICATIONS*

Property	Typical Value
Tensile strength ¹	331 PSI at 73°F / 432 PSI at 0°F
Elongation (break) ²	192% at 73°F / 216% at 0°F
Tear resistance ³	37.5 lbf/in (Die C)
Viscosity (Brookfield RVF) ⁴	Typical 8,000 to 12,000 cps
Reflectivity (White) ⁵	0.70 Aged 3 yr
Emissivity (White) ⁶	0.90 Aged 3 yr
SRI value	110 Initial
Permeance ⁷	US Perms 5.9
Tensile, set at 100% elongation	Nil
Temperature stability range	-80°F to 350°F (-37°C to 177°C)
Water absorption ⁸	0.1 weight % after two weeks at 75°F (24°C)
Weathering / UV resistance ⁹	No degradation @ 5000 hrs
Specific gravity	1.30 at 77°F (25°C)
Tack free time	1 hour (Temp/Humidity Dependent)
VOC ¹⁰	< 50 Grams/Liter
Durometer hardness ¹¹	50±5 points
Solids content by weight ¹²	96%±2
Solids content by volume ¹³	96%±2
Maximum continuous service temperature	185°F (85°C)
Flash point ¹⁴	(COC) 290°F
Cure time	Minimum 2 hrs @ 100°F & 90% Humidity / Maximum 8 hrs @ 40°F & 20% Humidity
Shelf life	6 Months when unopened and stored between 35°F and 75°F

COMPLIANCE / TEST METHOD NOTES

* Material tested complies with all the requirements of ASTM D-6694-01 Standard Specification Liquid-Applied Silicone Coating used in Spray

Polyurethane Foam Roofing. *Passed: ASTM C1305 Crack Bridging Ability.

1 ASTM D-2370

2 ASTM D-2370

3 ASTM D-624

4 #5 Spindle 20 rpm @ 77°F

5 ASTM C-1549

6 ASTM C-1371 7 ASTM E-96 (Procedure B)

8 ASTM D-471

9 ASTM D-6694

10 ASTM D-3960/EPA Method 24

11 ASTM D-2240 Shore A

12 ASTM D-1644

13 ASTM D-2697

14 ASTM D-92

INSTALLATION / APPLICATION NOTES

WEATHER RESTRICTIONS

Apply above 50°F (10°C) where possible. Do not apply if rain is expected within 1 hour. Lower-temperature application may be possible, but cure time will be extended.

SURFACE PREPARATION

All surfaces must be clean, dry, and paintable. Power washing and/or priming may be necessary to enhance adhesion. See application specification for details.

MIXING PROCEDURES

No thinning or reducing is necessary. Product may separate during shipping or storage, even when it appears mixed. Mix well before use with a 3/4 horsepower or larger air-operated mixer. Use a 3" minimum mixing blade for 5-gallon pails and a 6" minimum blade for drums. If thinning is necessary, contact Davlin Coatings. Containers are packaged with dry nitrogen to limit premature curing; after opening, use as soon as possible or reseal with dry nitrogen gas.

COLOR / TOPCOAT NOTES

Colors may be used as either a base or topcoat due to the bond agent present in all coatings. Cure is 2-8 hours depending on temperature and humidity. #11 ceramic roofing granules may be installed in the topcoat to improve aesthetics, traffic resistance and impact resistance.

APPLICATION PROCEDURES

Apply directly to any clean, dry, properly prepared surface. Spray-applied polyurethane foam should be coated within 24 hours of installation. Subsequent applications should be completed within 24 hours of the prior coat to promote full and uniform adhesion. ROOFSEAL® Silicone Top is formulated to achieve required total film build in a single-pass application where jobsite conditions permit. Multiple coats are not required solely to address pinholing, cure instability, or film integrity. Where multiple passes are used, apply in two or three separate applications of contrasting colors, each at right angles to the previous pass for uniform coverage. Before subsequent coating, the prior coat must be dry and cured. Contaminated cured surfaces must be washed with a chemical cleaner. Extend coating beyond the substrate to create a self-terminating flashing. Consult Davlin Coatings for recommended dry film thickness.

RECOATING PROCEDURE

May be used to re-coat existing spray-in-place roofing systems. Surface must be thoroughly cleaned using a power scrubber, pressure washer, chemical cleaners, or air wand, and must be completely dry before re-coating.

CLEANUP

Flush uncured material from spray equipment with VM&P; Naphtha or mineral spirits. ROOFSEAL® Silicone Top cures by reacting with moisture and should not be left in spray guns, pump equipment or hoses for prolonged periods unless equipment uses moisture-lock hoses, fittings and seals. Other equipment may transmit moisture vapor, form cured material on hose walls or unsealed connections, and increase operating pressure or restrict material flow.

ROOFSEAL® SILICONE TOP
High-solids silicone roof coating

The information, ratings and opinions stated above are, to the best of our knowledge, accurate, representing the results of laboratory and field evaluation. It is the responsibility of the user to determine whether the product is suitable for the application.