BFT-605S Silicone Roof Coating

Single-component, ultra-high solids, reflective liquid-applied silicone coating for roof restoration and waterproofing

PRODUCT DESCRIPTION

BFT-605S is a single-component, moisture-cure silicone roof coating formulated to create a seamless, breathable and weather-resistant membrane over approved roofing substrates. Developed for low-slope roof restoration and maintenance waterproofing, it provides strong UV stability, long-term flexibility, ponding-water resistance and high solar reflectance in exposed service.

This Technical Data Sheet is formatted for the U.S. market and highlights the performance characteristics commonly reviewed by contractors, consultants and distributors, including solids content, VOC, tensile / elongation balance, tear strength, weatherability, reflectance retention and permeability. Values shown are representative laboratory or quality-control test data for product positioning and customer technical submittals.



Code	BFT-605S
Product Name	Silicone Roof Coating
Material Type	Single-component, ultra-high solids, moisture-cure silicone roof coating
Color	White standard; custom colors available upon request
Main Components	Hydroxyl-functional silicone resin, titanium dioxide, barium sulfate, reinforcing fillers, rheology modifiers and curing catalyst package
Primary Function	Reflective roof restoration coating, seamless waterproofing layer and weather-resistant protective membrane
Primary Roof Uses	Metal roofs, SPF, modified bitumen, BUR, aged single-ply membranes and selected existing coatings after preparation and adhesion verification

FEATURES / BENEFITS

- Single-component formulation requires no proportioning or field mixing, reducing application error and simplifying jobsite handling.
- Ultra-high solids, low-VOC body builds a durable membrane with minimal shrinkage and excellent resistance to ultraviolet exposure and natural weathering.
- Silicone chemistry provides superior long-term flexibility and dependable resistance to ponding water compared with many conventional reflective coatings.
- High solar reflectance and thermal emittance help reduce roof surface temperature and support cool-roof project objectives.
- Breathable cured film allows water vapor transmission while maintaining a monolithic waterproof barrier against rain intrusion.
- Suitable for spray, roller or brush application on a wide range of prepared roof surfaces and flashing details.

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TECHNICAL DATA

Property	Test Method / Basis	Test Value
Packaging	Factory package	5 US gal (18.9 L) pail; net weight approx. 24.6 kg / 54.2 lbs
Shelf Life	Unopened original container	24 months when properly stored
Solids by Volume	ASTM D2697 / internal QC	97% ± 2%
VOC Content	EPA Method 24	< 25 g/L
Density	ASTM D1475	Approx. 1.28-1.32 kg/L at 77°F (25°C)
Viscosity	ASTM D2196	21,000-26,000 cP, spray/roller grade thixotropic body
Skin-over Time	ASTM D1640 / internal QC	30-45 minutes at 77°F (25°C), 50% RH
Tack-free / Through Dry	Internal QC	2-6 hours depending on film thickness and weather
Recommended Recoat Window	Jobsite dependent	2-24 hours; ensure prior coat is clean and dry
Tensile Strength	ASTM D2370	260-320 psi (1.8-2.2 MPa)
Elongation at Break	ASTM D2370	350-380%
Tear Resistance	ASTM D624	36.0 ~ 42.8 lbf/in (approx. 6.3-7.5 N/mm)
Shore A Hardness	ASTM D2240	38-42
Permeance	ASTM E96 (BW)	Approx. 8.0-10.0 perms
Low Temperature Flexibility	ASTM D522 Method B	Pass, no cracking at low temperature
Wind-Driven Rain Resistance	TT-C-555B	Pass

REFLECTIVE / WEATHERING PERFORMANCE

Property	Test Method	Test Value
Initial Solar Reflectance	ASTM C1549	0.84-0.86, white
Initial Thermal Emittance	ASTM C1371	0.85-0.89, white
Initial Solar Reflectance Index (SRI)	ASTM E1980	102-108, white
Aged Solar Reflectance	ASTM C1549 / CRRC-style aging reference	0.68-0.74, white
Aged Thermal Emittance	ASTM C1371	0.81-0.86, white
Aged Solar Reflectance Index (SRI)	ASTM E1980	79-92, white
Accelerated Weathering	ASTM G154	No cracking, blistering or severe chalking after accelerated exposure
Service Temperature Range	Service exposure reference	Maintains flexibility in wide exterior temperature cycling conditions

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TYPICAL USES

- Restoration coating for aged metal, SPF, modified bitumen, BUR and selected single-ply roofs.
- Reflective waterproofing topcoat for low-slope commercial and industrial roof systems.
- Parapets, wall flashings, rooftop penetrations, curbs, seams and other detail areas requiring seamless waterproofing.
- Preventive maintenance coating over prepared existing roof assemblies to extend service life and improve reflectivity.
- Cold-applied coating where flame-free installation and low odor are preferred.

APPLICATION INFORMATION

Coverage Rate	Approx. 1.5 gal / 100 ft² for about 24 mils WFT, or 2.5 gal / 100 ft² for about 40 mils WFT. Actual coverage varies with surface texture, absorption and system design.
Application Methods	Airless spray, roller or brush. Back-roll where required to ensure uniform thickness and eliminate holidays.
Ambient Conditions	Recommended ambient air temperature 41°F (5°C) min. to 110°F (43°C) max.; relative humidity up to 80% max. Substrate must be clean, dry and above dew point.
Surface Preparation	Substrate must be structurally sound; free of dust, oil, grease, frost, loose granules, mildew, peeling coatings and other contaminants. Repair all cracks, seams, blisters and wet areas before coating.
Adhesion Verification	Conduct adhesion testing on existing roofs, aged single-ply membranes and unknown substrates before full-scale application. Primers may be required on difficult or asphaltic surfaces.
Cleanup	Do not dilute unless specifically approved. Remove uncured material with compatible solvent; cured material must be removed mechanically.

COMPATIBLE SUBSTRATES / LIMITATIONS / LEGAL NOTE

- Compatible substrates may include SPF, metal, concrete, modified bitumen, BUR, EPDM, TPO, PVC, CSPE and parapet/coping materials after preparation and compatibility review.
- Asphaltic roofs may require a bleed-blocking primer to minimize discoloration or staining.
- Do not apply over wet, frosted, actively leaking, structurally unsound or contaminated substrates, and avoid installation when rain is imminent before skin-over develops.
- Professional use only. Review the current Safety Data Sheet before handling, storage, transportation and disposal.
- Published values are representative laboratory or QC reference values for technical submittal formatting and should be confirmed by current production testing before formal warranty, code or certification claims.