

POLYBRITE® 90

HIGH SOLIDS SILICONE ROOF COATING

PRODUCT DESCRIPTION

PolyBrite 90 is a premium grade high solids, moisture cure, liquid applied silicone coating available in white or as tinted, which cures to form a seamless membrane when applied over the entire roof area. It also keeps the surface cool, providing protection from ultraviolet sun and other weather exposures.

USES


- Protect and waterproof a variety of roof surfaces.
- Suitable for use on sprayed polyurethane foam, most metal roof systems, concrete, Thermoplastic and Thermoset single-ply membranes (primer may be required). Suitable for use over various conventional BUR and polymer modified roof membranes with smooth and mineral surfacing when primed with PolyBrite 97X Epoxy Primer or PolyBrite 98 one-part acrylic primer/bleed blocker. Contact Polyglass Technical Services for clarification of unusual surfaces or project conditions.

FEATURES AND BENEFITS

- Excellent resistance to weathering including: UV radiation, extreme temperatures, as well as rain, ice and snow.
- Extends the useful life of the roof.
- PolyBrite 90 can reduce energy costs by decreasing roof surface temperature.
- Fungal and algal resistant – even in high temperatures.
- Non-flammable and presents minimal hazard to the applicator or the environment.

TYPICAL PHYSICAL PROPERTIES

TEST PROPERTY	TEST VALUE	TEST PROCEDURE
Accelerated Weathering @ 5000 hr (pass/fail)	pass	ASTM D6694
Permeance (perms)	5.9	ASTM E96 (procedure B)
Elongation (%)	175 ± 25	ASTM D2370
Tensile Strength (psi)	325 ± 25	ASTM D2370
Hardness (Shore A)	50 ± 5	ASTM D2240
Viscosity - spray grade/bulk (cP)	5,000–8,000	Brookfield® 4d/5 RPM/77°F
Viscosity - roller grade/pail (cP)	8,000–12,000	Brookfield® 4d/5 RPM/77°F
Weight/gal (lb)	10.8	ASTM D2939
Solids Weight (%)	96 ± 2	ASTM D1644
Solids Volume (%)	96 ± 2	ASTM D2697
Temperature Stability Range (°F)	-80 to 350	
Tack-free time (hrs, subject to temp/humidity)	1–4	ASTM D3960
VOC (gm/l)	< 100	Calculated
Flash Point (°F)	290	PMCC

 <p>CRRC COOL ROOF RATING COUNCIL®</p>	Rated Product ID #: 0616-0013	
	Smooth	Rough
Solar Reflectance	Initial / Aged 0.87 / 0.70	Initial / Aged Not Rated
Thermal Emittance	0.89 / 0.90	Not Rated
<p>The ratings above are subject to CRRC rating program conditions, requirements and limitations. Visit coolroofs.org for important information and disclaimers about CRRC rating requirements and limitations. For the purposes of a CRRC rating, a rough substrate is defined as a surface that is equally coarse or coarser than a new (i.e., unweathered) #11 granulated modified bitumen sheet.</p>		

Solar Reflectance Index (SRI) – Initial: 110 • Aged: 86



APPLICABLE STANDARDS

- Meets or exceeds the requirements of ASTM D6694 Standard Specification Liquid-Applied Silicone Coating.
- Meets or exceeds the requirements of ASTM C1305 Standard Test Method for Crack Bridging Ability of Liquid Applied Waterproofing Membrane.
- UL Classified - File #R14571
- FM Approved
- Can be used to comply with 2016 Title 24 Part 6 Cool Roof requirements. (White only)
- CRRC Listed (White only)
- NSF Protocol P151 - Health Effects from Rainwater Catchment System Components. See listing at www.nsf.org for application and cure instructions for rainwater catchment use. (White only)
- Texas Department of Insurance
- Florida Building Code
- Miami-Dade County Product Control Approved



PACKAGING

- 5 Gallon (18.9 Liters) Pail
- 50 Gallon (189 Liters) Drum

COLORS

Standard colors are White and Kool Grey. Custom colors may be available upon request. Speak with your Polyglass Sales Rep regarding batch minimums and required lead time.



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PONDING WATER

The chemistry of silicone, which Polyglass Silicone roof coatings are manufactured with, is not adversely affected by ponding water or prolonged rain exposure. Please be advised that good roofing practices, Building Codes and The National Roofing Contractors Association (NRCA) consider ponding water on any roof undesirable and recommend that all roof systems be designed and built to ensure positive drainage (See the NRCA Roofing and Waterproofing Manual and any applicable Code Ordinances).

APPLICATION INSTRUCTIONS

Surface Preparation:

- All surfaces to receive coating must be clean, dry and free from any foreign matter such as dirt, oils, grease or other debris that could inhibit the adhesion capabilities of the newly installed products.
- Metal surfaces that display rusting or other oxidation, to be prepared with a grinder or wire brush as needed to remove surface contaminants.
- Existing roof systems to be visually inspected for conditions that may adversely affect adhesion of performance of newly installed products. Repair any visible deficiencies such as splitting, blistering, and buckling with PolyBrite 72 or PolyBrite 73 Elastomeric Mastic and PolyBrite Polyester Fabric.
- Visually inspect all metal and non-metal flashings, edges, drains, valleys and through-roof penetrations and repair as needed by project conditions.
- Do not apply to wet or visibly damp surfaces, or surfaces previously covered with coal tar based products or Kynar® finishes.
- Concrete surfaces cured with wax/resin based compounds can inhibit adhesion.

Application:

- Stir well prior to application.
- PolyBrite 90 is recommended to be applied with high pressure sprayer for best appearance and coverage. It may also be applied by roller or brush applications.
- Apply PolyBrite 90 at 20 wet mils (1.25 gallon per 100 square feet) per coat. Typical application conditions require PolyBrite 90 be applied in two coats at 20 wet mils per coat. Consult Polyglass Technical Services for application rates for specific roof membranes and for job specific application specifications.
- Subsequent coats should be applied within 24 hours of prior applications to insure full and uniform adhesion. Coating must be evenly applied and pinhole-free. Before applying a subsequent coat of this product, the previous coat must be completely dry and cured. Apply second coat perpendicular to the first.
- Apply only when ambient temperatures are 50°F and rising. Cold weather could result in uneven application and improper curing of product. Do not apply if there is a threat of inclement weather within 4 hours of application. Drying time is dependent on temperature, humidity and film thickness.
- Do not thin product.
- Prior to using this product on new cap sheets (smooth or granulated), it is recommended to wait 30 days for weathering.

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 5000 PSI should be used. The pump should have a minimum of 2.5 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 ¾" and an adequate working pressure. The spray gun should be high pressure (5000 PSI) with reverse-a-clean spray tip, 0.029-0.035 and a 50°

fan tip. Any filters on spray rig or gun should be removed. Filters are required when applying fine finishes but not for roof coatings.

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

Storage and Cleaning:

- Product shelf life: 12 months from date of manufacture when stored between 35°F and 75°F.
- Do not store at temperatures greater than 120°F.
- Store 24 hours at room temperature prior to application.
- Observe normal safeguards for storing and handling of this product prior to and during application.
- Keep containers covered when not in use.
- Cleanup of spray equipment containing uncured material may be accomplished by flushing with VM&P Naphtha or mineral spirits. PolyBrite 90 cures by reacting with moisture and should not be left in spray guns, pump equipment and hoses for prolonged periods unless equipment contains moisture lock hoses, fittings and seals. Equipment without these components will transmit sufficient moisture vapor to gradually form cured material on hose walls and at unsealed connections potentially causing an increase in operating pressure and material flow restriction.

For Professional Use Only - Keep out of the reach of children.

MANUFACTURING FACILITIES

- Fernley, NV
- Hazleton, PA
- Phoenix, AZ
- Waco, TX
- Winter Haven, FL

CORPORATE HEADQUARTERS

Polyglass U.S.A., Inc.
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Customer Service: (800) 222-9782

Technical Service: (866) 794-9659

Questions? technical@polyglass.com

Product Disclaimer: Unless otherwise incorporated into or part of a supplemental manufacturer's warranty, Polyglass warrants its product(s) against manufacturing defects that result in the material not complying with product specifications for a period of 12 months.

Refer to safety data sheet (SDS) for specific data and handling of our products. All data furnished refers to standard production and is given in good faith within the applicable manufacturing and testing tolerances. The product user, and not Polyglass, is responsible for determining the suitability and compatibility of our products for the user's intended use.

For the most current product data and warranty information, visit www.polyglass.us