

ROOFING

670HS Karna-Sil Ultra (High Solids, Low VOC Silicone Coating)



Read Safety Data Sheet before using this product.

DESCRIPTION: 670HS Karna-Sil Ultra is a white, single component, high solids, moisture curing silicone coating that produces a durable elastic coating with exceptional weathering and water resistance characteristics.

USES: Newly Sprayed Polyurethane Foam or Previously Coated Silicone roofs (no primer required); metal, concrete, masonry, TPO, PVC, Hypalon, and EPDM roofs (requires 180 Karna-Sil Ultra Epoxy Primer); BUR (Built-Up) and Modified Bitumen (requires 180 Karna-Sil Ultra Epoxy Primer or 405 Bond-N-Shield Base Coat). BUR surfaces must be allowed to age a minimum of 90 days. SBS and APP granular modified membranes and smooth surface APP membranes must be allowed to weather a minimum of 30 days as well as new metal roofs. 670HS may be used on vertical as well as horizontal applications. All surfaces must have positive drainage. **Note:** Vertical application may require multiple coats to achieve desired film thickness.

SURFACE PREPARATIONS: Surfaces to be coated should be dry, clean, and free of dirt, dust, grease, oil and loose rust or coating. Recommended application temperature is 50°F to 120°F. Power wash surfaces with 799 Wash-N-Prep Roof Cleaner or 507 SPC Primer/Wash (EPDM Only) and water. Wash roof surfaces with a minimum of 2000 psi. Taking all necessary precautions to avoid damage to the roof system. Patch and repair all seams, flashings, damaged areas, leak and cracks with 502MS Karna-Flex, or 505MS Karna-Flex WB or appropriate sealants or caulking materials.

APPLICATION: 670HS Karna-Sil Ultra should be applied in a single coat application at the required application rate. If additional coats are to be applied, allow previous coat to cure 2-8 hours (dependent upon temperature and humidity) before applying subsequent coat. Subsequent coats should be applied within 24 hours of previous application to ensure uniform adhesion. Applied coating film should be even and free of pinholes. Coverage will vary depending on the surface to be coated. To improve aesthetics, impact resistance and toughness of the coating, ceramic roofing granules should be applied immediately into the final coat after application. Back-roll granules into coating and allow to cure then blow off or sweep loose granules from the surface. Mix coating prior to application with a 3" diameter mixer (5-gallon pail) or 6" diameter mixer (50 gallon drum). Once product is mixed, the entire container should be used. 670HS Karna-Sil Ultra may be applied by brush, roller or airless spray equipment. Apply at temperatures 50°F to 120°F. Do not apply if rain is expected within 24 hours after application. Commencement of work by the contractor implies their approval of the roof surface. See listing at www.nsf.org for application and cure instructions for rainwater catchment use.

ROLLER / BRUSH APPLICATION: Apply with a 3/4" – 1-1/4" nap roller or soft roof brush.

SPRAY APPLICATION: For spray application, a high-pressure airless spray unit with a minimum of 3500 psi working pressure at the gun tip should be used. The pump must have a 3 gallon per minute output. Hoses should be jacketed for prevention of moisture contamination. Hoses should have a 3/4" ID and tip size should be a minimum size 0.027 orifice. Do not use with hoses that have been used to spray acrylic coatings.

COVERAGE RATE: Apply in a single coat at 1.5 gallons per 100 sq. ft. (24 dry mils) for most applications.

COLORS: White

CAUTION: Follow SDS and all recommended safety procedures strictly when using these products. If spraying, equipment should be grounded to avoid accidental ignition due to static sparks. Avoid breathing solvent vapors. Use with appropriate MESA/NIOSH approved respirator when exposure can exceed recommended PEL. Not for interior use. Do not apply when rain is imminent. Keep containers properly sealed when stored indoors, in a cool well-ventilated area. Keep containers away from moisture. Keep away from heat, sparks and open flame. Do not store above 100°F. Do not thin. Keep out of reach of children. Avoid prolonged contact with skin. Dispose of in an environmentally safe manner. Cover air intakes during application and while drying. For exterior use only.

Cold-process systems and coatings, either emulsion or solvent-based, should only be installed on decks with positive drainage. Per NRCA (National Roofing Contractors Association), "The criteria for judging proper slope for drainage is that there be no evidence of standing water on a deck 48 hours after it stops raining."

PACKAGING: Available in 5-gallon pails and 55-gallon drums.

If further information is needed, contact KARNAK Technical services at 800-526-4236.

PHYSICAL PROPERTIES & SPECIFICATIONS

Meets ASTM D6694

Weight per Gallon: 10.7 lbs.

Solids by Weight: 96%, Nominal

Solids by Volume: 96%, Nominal

Color: White

Hardness, Shore A: 50

Elongation: 192% @ 73° Nominal
216% @ 0°F Nominal
ASTM D 2370

Tensile Strength: 331 PSI @ 73° Nominal
432 PSI @ 0° Nominal
ASTM D2370

Tear Resistance: 26 PSI
ASTM D 624

Cure Time: 2 hrs. @ 95°F / 90% RH
8 hrs. @ 50°F / 20% RH

Application Temp.: 50°F to 120°F

Service Temp (Cured Film): -15°F to 180°F

VOC Content: <50 g/L MAX

ASTM D 6694

Solar Reflectance: 0.87 Initial
(White Only) 0.70 3-Yr. Aged

Thermal Emittance: 0.89 Initial
(White Only) 0.90 3-Yr. Aged

SRI: 110 Initial
(White Only) 86 3-Yr. Aged



NSF Protocol #151
Health Effects from Rainwater
Catchment System Components