

HarcoSil 20-164 17-HSS-20-164

Silicone Roof Coating

Professional Use Only



KEY FEATURES

- High Solids:** Can cover with one-coat application.
- Weatherproofing Protection:** Long-term weathering protection.
- Cool Roof:** Choosing White Color and IR Reflectant pigments produce excellent cooling effect, color stability and chalk resistance.
- Ponding Water Protection:** Withstands permanent ponding water.
- Breathable:** Reduces blistering and the possibility of damage to the substrate caused by entrapped water.
- Fungi Protection:** Mold and mildew resistant.
- Excellent adhesion:** Designed for use over many different substrates such as SPF, metal roofs, aged coatings, PVC, concrete and EPDM.
- Versatile application:** Can be applied using brush, roller, squeegee, airless spray. Wide temperature application range.
- Roof System:** Can be used with CSL Sealants and other materials to construct an impervious membrane over complex surfaces.

HarcoSil 20-164 is a 100% silicone, RTV moisture cure, waterproof roof coating which forms a monolithic barrier to the effects of degradation caused by normal weathering, aging and ultraviolet exposure. **HarcoSil 20-164** has excellent durability, color stability and chalk resistance. It is typically used as a protective coating for polyurethane foam or metal and new or existing roofs.

HarcoSil 20-164 bonds to sprayed-in-place polyurethane foam roofing systems, aged water-based coatings, concrete, plywood, metal, and most existing coatings on flat or sloped roofs. The coating can be applied using brush, roller, squeegee or airless spray.

PRODUCT CHARACTERISTICS AND PRACTICAL INFORMATION

Volume Solids	94%
Typical Thickness Application Rate	20 mils (508 microns) dry film thickness (DFT).

Approximate Theoretical Coverage:

DFT	18.0 mils (457µm)	22.0 mils (559µm)
sq. ft/US gal	84	69

Allow appropriate loss factor:

Practical Coverage = Theoretical Coverage x [100% - Loss%].

Method of Application: Airless spray, squeegee, brush or roller

Application Temperature Range: 41 to 140°F (5 to 60°C)

Drying Time:

Skin-over Time	68 minutes*
Dry/Cure/Recoat Time	4 to 6 hours*
Full Physical Characteristics	7 days*

*At standard conditions [77°F (25°C) and 50% relative humidity]

PHYSICAL PROPERTIES

(Typical properties - values not to be used as specifications)

Uncured	
Specific Gravity	1.32
Appearance	Thick Paint
Viscosity	4,100 ± 1,000 cP
Cure System	Neutral, moisture cure
Cured At Standard Conditions* for 7 Days	
Hardness (ASTM D2240, Shore A)	40 points
Initial Tensile Strength (maximum stress) @23°C per ASTM D2370/D 6694/D6694M- 15	288 psi
Initial Tensile Strength (maximum stress) @-18°C per ASTM D2370/D 6694/D6694M- 15	376 psi

Initial Percent Elongation (break) @23°C per ASTM D2370/D 6694/D6694M- 15	282%	
Initial Percent Elongation (break) @23°C per ASTM D2370/D 6694/D6694M- 15	330%	
Tear Resistance (ASTM D624 Die B)	22 lbf/in	
Adhesion to SPF per ASTM D903/D 6694/D6694M- 15	3.55 pli	
Low Temperature Flexibility @ -26°C per ASTM D522/D 6694/D 6694M- 15 min. Pass (around a 1/2" mandrel)	Pass	
Permeance per ASTM E96/E96M (Procedure B water inverted) D6694/D 6694M- 15	4.44 perms	
CRRC ASTM D7897-18 Standard Practice for Laboratory Soiling and Weathering of Roofing Materials to Simulate Effects of Natural Exposure on Solar Reflectance and Thermal Emittance	Initial	
	C1549-16	0.856
	C1371-15	0.89
	E1980-11(2019)	107.9
	Soiled	
	C1549-16	0.723
	C1371-15	0.89
	E1980-11(2019)	88.9
Temperature Stability:	-60 a 200°C (-76 a 392°F)	

*At standard conditions 77°F (25°C) and 50% relative humidity.

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COLORS

HarcoSil 20-164 is available in White, Tan, Light Grey and Dark Grey. For special projects, other colors are available using custom color matching at an additional charge. Please contact Neptune Coatings for assistance. Terms and conditions may apply.

SURFACE PREPARATION & CLEANLINESS

All surfaces to be coated should be free of dirt, dust, chalking paint, mortar spatter, all loose rust, all loose mill scale, old caulking, grease, oil, release agents, curing compounds, laitance and other foreign matter including frost. Surfaces should be power washed with appropriate detergent and rinsed prior to coating.

Roof surfaces need to be clean and dry. A 20 mil thickness will skin over in about 60 minutes and have sufficient strength to walk on for application of a second coat in about 4 to 6 hours.

APPLICATION

Mixing: **HarcoSil 20-164** is supplied as a one-part coating (no component mixing necessary). Mix by an air powered agitator (300 – 400 rpm) for a minimum of 5 minutes, to ensure an even consistency of coating is obtained without air in suspension.

Application: The temperature of the surface to be coated should be between 41 and 120°F (5 and 60°C) and environmental temperature should be at least 5°F (3°C) above the dew point prior to and during application.

When working with **HarcoSil 20-164** in high humidity and/or high temperature environments, it is recommended to use a pail lid adapter fitted with an agitator. This will prevent the product from skinning over and curing in the pail during application.

It is recommended that **HarcoSil 20-164** be applied using an airless sprayer; however, brush, squeegee or roller are also suitable methods of application. It is necessary to apply at a rate that will achieve a minimum of 20 mils (508 µm)

DFT. **HarcoSil 20-164** can be applied in a single coat withstanding blistering and providing superior adhesion. Roller and brush application will require multiple coats to achieve desired DFT even if the coverage is adequate.

Surface finish is dependent on application method. Avoid using a combination of application methods whenever possible. Superior aesthetic appearance will be obtained with airless spray application. Always perform an adhesion test patch over smooth substrates, existing coated roofs and metal roofs. If adhesion result test is not satisfactory for the project please contact CSL Silicones for compatible primers and repeat test.

Thinner: Not recommended.

Cleaner: Naphtha or Odorless Mineral Spirits.

Work Stoppages & Restarts: Work stoppages are not recommended with only partial utilization of a container of **HarcoSil 20-164**. If work must stop after only a portion of a container of **HarcoSil 20-164** is used, seal to minimize air and moisture contact with the coating by covering the surface of the coating with a sheet of polyethylene film, then reseal the container to be airtight. Upon reopening the container to restart work, peel back the polyethylene film. If curing of the coating has occurred, use a utility knife to cut the cured coating away from the wall of the container. Peel away the cured layer of coating to expose fresh coating underneath.

Clean-up: Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with Neptune Coatings equipment cleaner, naphtha or mineral spirits. Fully cured coating is environmentally benign (will not harm) and is suitable for landfill disposal. However, always check local environmental regulations before disposal.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations in accordance with the advice given in this document. See Safety Data Sheet (SDS) and the container(s). All work involving the application and use of this product should be performed in compliance with all relevant national, Health, Safety & Environmental standards & regulations.

Slip warning: Use extreme caution when working or walking on silicone coated surfaces. Surface is extremely slippery and can result in fall hazard with injury or death.

PACKAGING

HarcoSil 20-164 is available in 3.8 L (1 US gallon) cans and 18.9 L (5 US gallon) pails.

STORAGE

Shelf Life: 12 months from date of manufacture in the original unopened container below 90°F (32°C). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat or ignition. May be stored below freezing.

To our knowledge, all the technical information in this document is true and accurate at the date of publication of this technical data sheet and remain subject to modification without prior notice. The user can contact Neptune Coatings to verify the accuracy of the information before to specify the product or before to order it. We warranty that our product are compliant with the standards of quality control established by Neptune Coatings. We don't accept any liability regarding the coverage ratio, the performances or any wound resulting from the use of the product. The responsibility of Neptune Coatings if any is limited to the replacement of the product. No other warranty is given by Neptune Coatings directly or indirectly, by legal route or otherwise, regarding the suitability of the product to a given application.

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