

HARCOSIL 19-97

Silicone Roof Coating

Professional Use Only



DESCRIPTION

HARCOSIL 19-97 silicone roof coating is a high performing protective barrier for a variety of architectural surfaces and roofing substrates. Upon cure, HARCOSIL 19-97 forms a durable, breathable and weatherproof barrier that is highly resistant to degradation from UV and natural weathering.

HARCOSIL 19-97 is supplied in white.

RECOMMENDED USE

HARCOSIL 19-97 is used as a high reflectivity top coat.

LIMITATIONS

HARCOSIL 19-97 is not intended nor recommended:

- For use on pedestrian, deck or frequent traffic bearing surfaces.
- Cold storage roofing application without vapor barrier, cryogenic tank applications, or continuous water immersion service.

HARCOSIL 19-97 should not be applied to:

- Unprepared surfaces including but not limited to those that are wet, dusty, oily, mildewed, heavily chalked, blistered or otherwise structurally unsound.
- Building materials that might bleed oil or solvents. These include, but are not limited to, certain vulcanized rubber products, tapes, failed sealants, some caulking compounds and asphaltic/mastic materials unless appropriate preparation or primers are used. Consult Neptune Coatings' technical services for primer recommendations.
- Surfaces where adhesion has not been verified by testing.

Precautions

- Inclement weather may negatively affect uncured HARCOSIL 19-97 by displacement of uncured material; therefore, application of coating should not proceed if heavy rain, hail or snowfall is impending or expected within 24 hours of application.
- HARCOSIL 19-97 requires atmospheric moisture for propagation of cure thus it is not suitable for use in totally confined spaces.

FEATURES AND BENEFITS

- **Silicone Durability** – Cured silicone rubber exhibits excellent long-term resistance to natural weathering including: extreme temperatures, ultraviolet radiation, rain and snow.
- **VOC Compliant** – High solids solvent-free formulation and low Volatile Organic Compounds content is well below the current limits of California's relevant Air Quality Management Districts.
- **Ease of Use** – Can be applied with common airless equipment, roller or brush.
- **Versatile Application** – HARCOSIL 19-97 is a single component material that requires no mixing of separate components and can be applied by spray, roller or brush.
- **High Build Formulation** – Allows for single coat application and hangs on peaks without sagging.
- **Storage & Shelf Life** – HARCOSIL 19-97 can be stored in unheated warehouses during the cooler months without the risk of freezing. Shelf life is 18 months from date of manufacture when properly stored.

PACKAGING / SHIPPING INFORMATION / STORAGE

HARCOSIL 19-97 is supplied in 5 gallons / 19 liters pails.

Product should be stored in dry and cool rooms for up to 12 months.

Protect the material against moisture and direct sunlight.

Storage temperature: 1-49°C / 34 - 120 °F

Products should remain in their original, unopened containers, bearing the manufacturers name, product designation, batch number and application precaution labels.

COVERAGE

50 sqft per gallon or 0.82 liter per m².

This coverage is based on application by roller onto a smooth surface in optimum conditions. Factors like surface porosity, temperature and application method can alter consumption.

PROPERTIES

The HARCOSIL 19-97 was also tested and approved by various laboratories.

PROPERTY	RESULTS	TEST METHOD
Solid content, volume	81 +/- 2%	ASTM 2697
Solid Content, Weight	89 +/- 2%	ASTM 1644-01
Tack Free Time	20-30 Minutes	ASTM D3960
Skin over time	10-15 minutes	WPSTM C560
Viscosity	26,900 centipoises	ASTM D2196
Tensile Strength	288 psi / 1.98 MPa	ASTM D2370
Elongation	244%	ASTM D2370
Durometer Hardness Shore A	36	ASTM D2240
VOC	< 24 g/l	EPA method 24

PROPERTY	RESULTS	TEST METHOD
Solar reflectance	88%	ASTM C1549
Emittance	0.90	ASTM C1371
SRI Value	111	ASTM E1980
Permeance	9.3 perms	ASTM E96 (BW)
Tear Resistance	32 lbf/in	ASTM D624
Low Temperature Flexibility	Pass	ASTM D522 9B)
Resistance To Wind Driven Rain	Pass	TT-C-555B

SURFACE PREPARATION AND APPLICATION

Surface Preparation

HARCOSIL 19-97 can be applied to itself as well as a variety of roofing materials and substrates including: single ply membranes (TPO, PVC, EPDM, CSPE, and hypalon), spray-applied polyurethane foam, metal, concrete, and common parapet/coping materials. Asphaltic substrates such as; modified bitumen, smooth BUR, and granulated cap sheet which may require bleed blocker.

Surfaces to which HARCOSIL 19-97 is to be applied must be clean, dry, structurally sound and free of loose particles, dirt, dust, oil, frost, mildew and other contaminants. Damage to the underlying roof system, such as cracks, openings, holes, etc. should be properly repaired prior to application.

Saturated substrates must be removed and repaired appropriately.

Users of HARCOSIL 19-97 should verify that suitable adhesion can be attained to all existing roofing materials to be coated prior to large scale application of the coating.

It is recommended that a test patch be cleaned and coated with HARCOSIL 19-97 to verify the effectiveness of the cleaning method and adhesion to the surface(s).

Application Guidelines

Care should be taken to avoid overspray onto adjacent building materials, vehicles, plants, etc.

Overspray can be cleaned up before it has cured by wiping alternately with solvent and dry rags.

Cured material can be removed from surfaces with a razor blade, or scrubbed off with steel wool or synthetic abrasive pads and solvent.

To control overspray, avoid spraying in winds that may cause drift. Surfaces not intended for coating should be masked or covered.

HARCOSIL 19-97 should be sprayed or rolled ensuring uniform build and thorough coverage and is typically applied in one coat.

If applying in multiple coats, allow adequate time between each coat for the coating to cure before applying additional coat. Final cured film thicknesses must be free of voids, pinholes, cracks or blisters.

Application Temperature

HARCOSIL 19-97 can be applied throughout the year as long as the substrates being coated are completely dry. Frost and/or moisture will interfere with adhesion. Lower temperatures will lengthen the skin over, tack free and ultimate cure time and may require an overnight cure in winter months to allow the top coat application to proceed (film build may not be sufficient to allow walk over). Higher temperatures will accelerate the cure rate and decrease the open time of the coating. Under summer conditions time to top coat may be as short as 1 hour. Do not apply HARCOSIL 19-97 when substrate surface temperatures exceed 176°F (80°C).

Application Equipment

HARCOSIL 19-97 can be applied by spraying, rolling or brushing. HARCOSIL 19-97 works with most commercially available spray application equipment that can deliver a minimum of 3,300 psi at the spray tip for at least 2.2 gallons per minute. Always use components rated for the required pump pressure. Hoses should be vapor lock type for prevention of moisture contamination. Contact Neptune Coatings' technical services for equipment recommendations. Cleanup of spray equipment containing uncured material may be accomplished by flushing with mineral spirits or toluene. DO NOT USE water or alcohol based solvents. HARCOSIL 19-97 cures by reacting with moisture, thus it should not be left in pumping equipment and hoses for prolonged periods unless equipment contains moisture lock hoses, fittings and seals. Equipment without moisture lock hoses, fittings and seals may transmit sufficient moisture vapor to gradually form cured material on hose walls and at unsealed connections. This can cause increased operating pressures and flow restriction.

SAFE PRACTICES

Customers considering the use of this product should review the latest Material Safety Data Sheet and label for product safety information, handling instructions, personal protective equipment if necessary, and any special storage conditions required. Material Safety Data Sheets are available upon request. Use of other materials in conjunction with HARCOSIL 19-97 (for example, primers) may require additional precautions. Please review and follow the safety information provided by the manufacturer of such other materials.

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.