
DESCRIPTION:

Nukote SIL HS is a single-component silicone elastomer specifically designed with high volume solids. It is a pure elastomeric silicone coating system that provides superior weatherproofing, and UV resistance over a variety of roof substrates. The outstanding features of Nukote SIL HS are its high solids content, rapid cure and superior physical properties. Tested and certified to meet Cool Roof Rating Council (CRRC) and EPA guidelines for ENERGY STARR compliance.

FEATURES:

- Prolongs the life of a roof while helping lower internal temperatures and reducing cooling costs
- Hydrophobic - withstands water penetration
- Excellent adhesion to a variety of roof substrates and systems
- Ease of application - extremely fast and simple to install
- Can be used to reinforce and seal seams, penetrations and terminations, and make spot repairs
- Slows degradation caused by normal weathering, aging, and ultraviolet rays
- Economical - extends the life of your roof
- Retains its integrity from -80°F to 250°F
- Accelerator package is available to shorten cure time
- Can be re-coated up to 7 to 10 days between coats
- No checking or cracking after 10,000 hours

TYPICAL USES:

- Nukote SIL HS can be applied to aged or cured single-ply, metal, spray polyurethane foam, built-up roofing or modified bitumen, and concrete roof systems.
- Can be applied as part of a maintenance or repair program or as part of Cool Roof System.

COLORS:

White, Grey, Tan. Custom colors, blended to match any RAL number, are available upon request subject to minimum quantity.

PACKAGING:

55-gallon (208.2 liters)
5-gallon (18.93 liters) pail

COVERAGE:

Nukote SIL HS may be applied at any rate to achieve the desired thickness.

Calculation for theoretical coverage:

1 gal. = 16 wet mils/100 sq. ft.
1.5 gal. = 24 wet mils/100 sq. ft.
2 gal. = 32 wet mils / 100 sq. ft.
2.5 gal. = 48 wet mils / 100 sq. ft.

STORAGE:

12 months. Keep containers closed and store in a dry, cool place away from heat, sparks, open flame, excessive heat, and moisture. Keep material stored above 65°F (18°C). Open containers should be blanketed with dry nitrogen before resealing. Avoid storing the pails or drums on concrete floors. Use of wood pallet is recommended.

Vapors are heavier than air and may travel along the ground or may be moved by ventilation and ignited by pilot lights, other flames, sparks, heaters, smoking, electric motors or other ignition sources at locations distant from the material-handling point. Never use a welding or cutting torch on or near the drum. In case of fire, use CO₂, steam, dry chemicals or water fog.

TECHNICAL DATA (All values @ 77 °F / 25 °C)	US	Metric
Solids by volume (ASTM D2697)	97+-2 %	97+-2 %
Volatile organic compounds (ASTM D2369)	0.4 lb./gal	40 gm/ liter
Theoretical coverage	1 gal. = 16 wet mils/100 sq. ft.	3.8 lit = 0.4 wet mm/9.1 sq. m.
Specific Gravity of materials (ASTM D792)	10.93 lbs./gal	1.31 kg/ liter
Viscosity (ASTM D4878)	8000-12000 cps	8000-12000 cps
Shelf life @ 77 °F /25 °C	12 Months	12 Months
Tensile strength (ASTM D2370)	300 psi	2.07 MPa
Elongation (ASTM D412-C)	185-215 %	185-215 %
Hardness (ASTM D2240)	45 to 55 Shore D	45 to 55 Shore D
Flexibility (2mm mandrel ASTM D522)	Pass	Pass
Permeability, US Perms (ASTM E96)	3.6	3.6
Reflectivity	88 %	88%
Emissivity	91 %	91 %
Tear strength (ASTM D642)	45 pli	7.88 N/mm
SRI	112	112
Weathering QUV 10,000 hours	No degradation	

MIXING:

Nukote SIL HS might not be diluted under any circumstance. Review all technical data sheets, system sheets, labels, instructions, SDS, and Guide Specifications before mixing and applying. At low speeds mix 55 gallon (208.2 liter) drums and 5 gallon (18.93 liter) pails with a variable speed drill utilizing a jiffy mixer to suspend any settled

pigments until a uniform color and consistency is achieved. Mixing time will vary based on temperature and atmospheric conditions.

SURFACE PREPARATION:

Concrete:

The surface of a concrete subfloor should be dry, smooth, structurally sound and free of depression, scale, or foreign deposits of any kind. Remove all curing compounds. Abrasive blast, sweep blast or water blast to remove all latent material and expose voids. Use a good quality epoxy filler or mortar for void and spall filling, skim coat or repairs. Prime, fill imperfections in the substrate surface to limit out-gassing. All concrete substrates, on or below grade level should be tested for moisture content. On-grade or below-grade concrete floors or slabs should have a moisture barrier installed to protect from ground moisture. The surface preparation of concrete should meet and conform to Joint NACE 6/SSPC-SP 13 standards and achieve a concrete surface profile of CSP 3 to CSP 6 as per ICRI Guideline No.03732 for optimum performance.

Metal:

All surfaces should be clean and free from contamination. The surface should be assessed and treated in accordance with ISO 8504, Abrasive blast the surface to minimum NACE-2/SSPC SP-10/Sa 2.5, as per ISO 8501-1, for a visual assessment of surface cleanliness with an anchor profile of 3 to 4 mils (75 -100 microns). Soluble salts must be removed to an acceptable levels. *Refer to NCSI surface preparation manual for detailed procedures for different types of substrates.*

APPLICATION:

Prior to coating any surface, be sure the coating will adhere by performing an adhesion test (ASTM D-903). Coating may be applied by brush, roller, or airless spray equipment. ALWAYS CHECK THE WEATHER PRIOR TO ANY APPLICATION. Depending on the ambient, and substrate temperatures, relative humidity, and dew point take extra time and caution when applying the coating within 2 to 6 hours of precipitation and/or when raw or freezing temperatures are experienced or anticipated. Do not apply over wet insulation or related materials. It is not recommended to apply Nukote SIL HS when substrate temperatures are over 120 degrees. Take extra precautionary measures when doing so. In areas where the roof is subject to foot traffic, it is recommended to apply walkway pads for added protection and slip resistance.

Nukote SIL HS can be extremely slippery, especially when wet. As an option, consider Accelerator for faster cure times.

Spray Applied: Spray application is not recommended below 50°F (10°C).

LIMITATIONS: To avoid pin-holes and blisters do not apply Nukote SIL HS in on application at a rate of 3.5 gallons per 100 square feet, (13.25 liters/9.29M2) @ 56 wet mils (1422 U). If apply at an application rate higher than 3.5 gallons per 100 square feet Accelerator may be used to avoid pinholes and/or blisters.

IN THE KNOW: Recoat time for Nukote SIL HS depends on environmental conditions and cleanliness of substrate. If applying after 48 hours an adhesion test is recommended (ASTM D903).

EQUIPMENT CLEAN UP:

Cured product may be disposed of without restriction. Containers should be disposed of according to local environmental laws and ordinances.

WARNING:

Review the Safety Data Sheets (SDS) and container labels for detailed health and safety information. This product is intended for industrial use by properly trained professional applicators only.

WARRANTIES AND DISCLAIMERS:

Nukote Coating Systems International, a Nevada, USA Corporation warrants that the two components of this product shall conform to the technical specifications published in the product literature. The quality and fitness of the product is dependent upon the proper mixture and application of the components by the applicator. Nukote Coating Systems has no role in the application of the finished polymer other than to manufacture and supply its two components. It is vital that the person applying this product understands the product and is fully trained and certified in the use of plural component equipment and application of plural component materials. There are no warranties that extend beyond the description on the face of this instrument, except when provided in writing, directly by Nukote Coating Systems International and executed under seal by a company officer.