
DESCRIPTION:

The Nukote Hydroseal is a single component, liquid applied, high solids, bitumen modified coal tar free moisture cured polyurethane elastomeric waterproofing membrane. Hydroseal is available in three grades for vertical (V) and horizontal (H) and a Spray version(SG) and suitable for application subject to hydrostatic pressure. Hydroseal cures to a seamless, resilient, flexible and durable membrane which can accommodate the normal expansion and contraction of structural members. Hydroseal is in complete compliance with SCAQM air quality standards, and has VOC levels equal to or less than 100 grams per liter

FEATURES:

- Meets ASTM C-836 requirements for liquid applied elastomeric water proof membrane
- Seamless, resilient, flexible and durable
- User Friendly and Solvent Free
- Low odor
- Resistant to microbial attack
- Low temperature crack resistance

TYPICAL USES:

- Planters
- Between Slabs
- Tunnels
- Foundation Walls
- Bridges
- Roofing

COLORS:

Standard color is white. Custom colors, blended to match any RAL number, are available upon request subject to minimum quantity.

PACKAGING:

50-gallon (190-liter) drum
5-gallon (19-liter) pails, with a full vial of catalyst

COVERAGE:

Nukote Hydroseal spread rate is 36 ft²/ gal /40 mils (0.88 m²/liter) at (1 mm) thickness without factoring any loss

STORAGE:

Six to nine months in factory delivered, unopened drums at 80°F (25 °C) .Store on pallets and keep away from extreme heat, freezing, and moisture. Opened and partially used material should be used within 2 days. Always store between 60-95 °F (15-35 °C).

MIXING:

Before application, mix Nukote Hydroseal using a mechanical mixer (Jiffy Mixer) at slow speeds or mix for at least 5 minutes. Mix Nukote Hydroseal thoroughly until a homogeneous mixture and color is obtained. Use care not to allow the entrapment of air into the mixture. Always mix in a circular motion and avoid mixing in an “up and down” motion.

TECHNICAL DATA (All values @ 77 °F / 25 °C)	Horizontal	Vertical
Solids by volume (ASTM D2697)	88%	88%
Volatile organic compounds (ASTM D2369)	0.83lb./gal	100 gm/ lit
Theoretical coverage	36 ft ² /gal (0.88m ² /liter)	36 ft ² /gal (0.88 m ² /liter)
Specific Gravity of materials ASTM D792	1.32	1.23
Shelf life @ 80 °F /27 °C	12 months	12 months
Viscosity 80 °F /27 °C	3000-7000	20,000-60,000
Tensile strength (ASTM D412-C)	300 -400 psi (2-3 Mpa)	300 -400 psi (2-3 Mpa)
Elongation (ASTM D412-C)	250-350 %	250-350 %
Hardness (ASTM D2240)	45 -55 Shore A	40 - 50 Shore A
Flexibility (2mm mandrel ASTM D522)	Pass	Pass
Water absorption -24 hours (ASTM D570)	~ 1 %	~1%
Crack Bridging @ -13 °F/-25 °C (ASTM C1305), 5 cycles	Pass	Pass
Tear strength (ASTM D642)	225 - 275pli	40 - 90 Kn/m
Impact Resistance (ASTM G14), No Holidays	> 200 in-lbf	> 20 J (N-m)
Flash point Pensky Martin	>200 °F	>93 °C
PROCESSING PROPERTIES (Under standard lab conditions)		
Mix Ratio V/V	Single pack	
Drying to recoat	16 hours	
Maximum recoat time	48 hours	
Maximum over coat time	24 hours	
<i>Properties and values are highly dependent on equipment, spray gun, mix chamber temperature, pressure and related parameters. Variations are possible and expected.</i>		

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 2 to CSP 5 as per ICRI Guideline No: 03732 for optimum performance.

Prime all the joints, cracks & flashings with Nukote EP Prime II or Nukote Metal Prime II. Apply Nukote Hydroseal mixture over all joints, cracks & flashings. Bridge the joints, cracks & flashings with 4" fiberglass straight jacket tape or 3" polyester tape, pushing it into the sealant with trowel. Apply a thin coat of Nukote Hydroseal paste over the reinforced tape and smooth on to adjacent surface.

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 2 to 3 mils (50 -75 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:

Nukote Hydroseal may applied using brush, roller, squeegee, and trowel. Spread mixed Nukote Hydroseal and apply two coats at a rate of 30mils (750 microns) per coat. Allow the first coat to cure before applying the second coat. Allow coating to cure a minimum of 12-16 hours before proceeding to subsequent coats.

Nukote Hydroseal(S) can be applied utilizing conventional heavy duty airless spray equipment with a standard tip size (.033 to .053) normally used to apply a high quality elastomeric asphaltic coating. Check with your equipment supplier for the sprayer and tip sizes. Extra care should be taken not to cause air bubbles.

Primer is must on new plywood. Apply Nukote Hydroseal evenly over the primed surface.

Protect membrane as soon as possible after completion of successful water test or visual inspection and/or repairs, with approved protection board or geotextile drainage composite. All horizontal and vertical membrane must be protected to prevent damages from back fill or other impacts.

Allow each coat to cure (depending on environmental conditions and temperature) a minimum of 12-16 hours and a maximum of 24 hours. If more than 48 hours passes between coats, re-prime the surface with recommended NCSI primer before proceeding. Nukote Hydroseal is very sensitive to heat and moisture. Higher temperatures and/or high humidity will accelerate the cure time. Use caution in batch sizes and thickness of application. Low temperature and/or low humidity extend the cure time.

EQUIPMENT CLEAN UP:

Cured product may be disposed of without restriction. Uncured Isocyanate and resin portions should be mixed together and disposed of in accordance with local regulations. Containers should be disposed of according to local environmental laws and ordinances.

LIMITATIONS:

Do not open until ready to use, and store in a sealed container after opening. Should be used only as a base membrane. The following conditions must not be coated with Hydroseal split slabs, buried membrane, sandwich slabs with insulation, and slabs over unvented metal pan, magnesite, and lightweight concrete. On grade slabs may receive Hydroseal system membrane provided a moisture-vapor transmission test is first performed. Please contact NCSI

technical department with the results. With regard to coating asphalt surfaces, please contact NCSI technical department.

Clear coating may turn opaque and cloudy due to moisture penetration, especially in exterior applications. Containers that have been opened must be used as soon as possible. Do not dilute under any circumstance not designed to withstand direct wear.

WARNING:

This product contains Isocyanate and curatives

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.