
DESCRIPTION:

Nukote IM-129 is a two component, liquid applied, asphalt extended aromatic polyurethane that adheres to most substrates, to form a waterproof membrane. Nukote IM-129 is ANSI / NSF-61 approved for contact with Potable Water. Nukote IM-129 meets or exceeds requirement of ASTM C-836 for elastomeric waterproofing membrane as well as ASTM C-957 for water proofing membrane with integral wearing course. It can be applied on concrete, steel, wood and asphalt and is suitable for service temperature between -6 ° F and 200 ° F (-21 ° C and 93 ° C)

FEATURES:

- Seamless, resilient
- Durable, provides trouble free waterproofing
- Expands and contracts with normal structural movements
- Suitable for interior and exterior waterproofing
- Bridge cracks and joints
- Impervious to water and aqueous chemicals
- VOC compliant
- Can be applied on concrete, steel, asphalt, metal, wood, glass
- ANSI / NSF 61 approved for contact with potable water (ANSI/NSF 61 approved up to 140 ° F (60 ° C)

TYPICAL USES:

- Substrates, storage tanks and pipes in contact with potable water
- Corrosion protection
- Secondary containment
- Roofing and reservoirs waterproofing (with scrim)
- Pond liners
- Tank Liner

COLORS:

Black. It fades to dull black on exposure.

*Note Where NSF approval is not required, IM 129 may be top coated with Nukote Protec 1 ALU for UV stable color.

PACKAGING:

1-gallon (3.8-liter) kits, of 0.1 gallon (0.38 liters) side A and 0.9 gallon (3.42 liters) of side B
4.5-gallon (17-liter) kits, One 1/2-gallon jar, net 0.45-gallon (1.7 liters) side A and One 5-gallon pail net 4.05 gallon (15.4 liters) of side B

COVERAGE:

Calculation for theoretical coverage: 50 ft²/gal @ 28 mils (1.2 m²/liter @ 0.7 mm). Apply it is 2 coats.

STORAGE:

Twelve months in factory delivered, unopened drums. Store indoor at 60-95 °F (15-35 °C) on pallets and keep away from extreme heat, freezing, and moisture. Opened and partially used material should be used within 7 days.

MIXING:

Using a mechanical mixer, first pre-mix side-A material thoroughly to obtain a uniform color, making sure to scrape the solids from the bottom and sides of the pail. Mix for 1-2 minutes. Box the materials to obtain a thorough mix. Use caution not to whip air into the material when using a mechanical mixer, as this may result in pinhole blisters and/or shortened pot life. For a faster application and curing heat Nukote IM-129 to 100° using a 9:1 dispensing unit with a static mixer.

TECHNICAL DATA (All values @ 77 °F / 25 °C)	US	Metric
Solids by volume (ASTM D2697)	89%	89%
Volatile organic compounds (ASTM D2369)	< 225 lb./gal	< 87 gm/ liter
Theoretical coverage	100 ft ² /gal/14 mils	2.5 m ² /liter/350 microns
Weathering (ASTM D822)	5000 hours	5000 hours
Specific Gravity of materials (ASTM D792)	A-9.35, B-8 lb./gal	A-1.12, B-0.96 kg/ liter
Mullen burst strength (ASTM D751) 50 mil (no break)	155 psi	0.007 MPa
Adhesive peel Strength on Primed Concrete (ASTM D903)	35-50 pli	6 - 9 kN/m
Shelf life @ 77° F / 25° C	12 Months	12 Months
Tensile strength (ASTM D412-C)	900 ± 100 psi	6 ± 0.7 MPa
Elongation (ASTM D412-C)	450 ± 100 %	450 ± 100 %
Tear strength (ASTM D624)	150 ± 50 pli	26 ± 9 kN/m
Membrane weight, 60 mils (1.5 mm) WFT	30 lbs/100 sq.ft	146.5 kg/100 sq.m
Recovery from 100% extension		After 5 minutes: 98% After 24 hours: 100%
Crack bridging		
10 cycles @ -15°F	>1/8"	>3.175 mm
After heating aging	>1/4"	>6.35 mm
Electrical Resistivity (ASTM D257), 50% R.H. 23°C, 2" (50 mm) disc, 100 mil (2.5 mm) thickness		3.86 x 10E14 ohn.cm
Weathering (ASTM D822)		Pass 5,0000 hours
Softening point, Ring & Ball (ASTM D36)	>400 °F	>204 °C

Deflection temperature (ASTM D648)		Pass
Hardness (ASTM D2240)	60 ± 5 Shore A	60 ± 5 Shore A
Water vapor permeability (ASTM E96)	0.06 perms	0.06 perms
Abrasion Resistance (ASTM D4060) weight loss	< 8 mg loss Taber CS 17 wheel 1Kg/1000 rev	
Adhesion to concrete (Dry)	350 psi	2.5 MPa
PROCESSING PROPERTIES (Under standard lab conditions)		
Mix Ratio (V/V)	9:1	
Pot life	18-20 minutes	
Recoat time	1 to 2 hours	
Maximum over coat time	7 to 8 hours	
Foot traffic	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 joints, cracks, flashings with Nukote EP Prime II. Apply Nukote IM-129 over all cracks, joints, flashings. Bridge joints, cracks, and flashings with 4" Nukote Joint Tape if needed.

Note: For rough and porous concrete or when outgassing is a concern, use Nukote EP Prime. Allow primer to become tack free before proceeding to the next phase.

Asphalt:

New asphalt and new concrete must be cured a minimum of 28 days prior to application. Old asphalt/concrete must be free of loose aggregate, dirt and be dry. New and old concrete should be Shot-, Water- or Abrasive-Blasted. Grease spots and oil should be cleaned with appropriate cleaners.

Cracks in asphalt/concrete over 1/8" must be filled with Nukote IM-129. Place scrim over crack and apply 10-20 mils of IM-129. Allow to cure 2-4 hours.

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:

The system utilizes two coats of IM-129 with an optional polyester inner-ply mat.

Application of Nukote IM-129 should not start if surface temperature is below 50 F° (10 °C). Ambient temperature must be 5 F° (3 °C) above dew point.

To promote adhesion and minimize outgassing, primer should be used on all surfaces except for new plywood, where it is optional. Prime the required surfaces with Metal Prime/EP Prime for metal or concrete, and Nukote AU Prime for asphalt surfaces at a rate of 1 gal/300 sq.ft (0.14 lit/sq.m). On rough or porous concrete the rate would change to 1 gal/200 sq.ft (0.21 lit/sq.m)

Apply IM-129 on the primed substrate, in 2 layers, each layer about 30 mils of thickness on clean, dry substrate. Apply Nukote IM-129 evenly, over the entire deck using a plural component sprayer machine or pour mixed material and spread the material with a squeegee or notched trowel over the entire deck. Apply Nukote IM-129 as a continuous coating to minimize lines and/or streaking. To obtain proper adhesion between coats, spread the dispensed material with squeegee and back roll evenly over the entire deck

Allow each coat to cure (depending on environmental conditions and temperature) a minimum of 1-2 hours and a maximum of 8 hours. If more than 8 hours passes between coats, abrade, clean, and re-prime the surface with recommended NCSI primer before proceeding. Nukote IM-129 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.

At 75 °F (24 °C) and 50% relative humidity, allow coating to cure for 24 hours before allowing foot traffic.

EQUIPMENT CLEAN UP:

Equipment should be cleaned with mineral spirits or an environmentally safe solvent, as permitted under local regulations, immediately after use.

LIMITATIONS:

Not suitable in sub grade, or as buried membrane, sandwich slabs with insulation, slabs over unvented metal pan, magnesite, and lightweight concrete. Slight chalking, fading and discoloration may occur over long term exposure. Containers that have been opened must be used as soon as possible. Do not dilute under any circumstance. Do not apply Nukote IM-129 in wet weather or if rain is imminent. Coating should not become wet within 4 hours after application.

WARNING:

This product contains Isocyanate, asphalt and solvent.

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.