NUKOTE CLASSIC

DESCRIPTION:

NUKOTE CLASSIC is a single pack product based on a patented technology. Nukote Classic is a solvent free, single component, liquid applied, water catalyzed, polyurethane elastomeric waterproofing base membrane suitable for horizontal and vertical applications on concrete, metal wood and masonries. Nukote Classic with compatible top coats are installed as a flooring system for high traffic pedestrian, vehicular traffic, commercial and industrial floors.

FEATURES:

- High solids with very low VOC
- Seamless, resilient, flexible and durable
- Patented advanced technological coating
- User friendly and solvent free
- Environmentally friendly and safe
- Non-gassing for applying in any thickness
- Non-skid surface available in many various textures and finishes
- Water curable polyurethane product
- No electrical conductivity
- Optional fast cure with added accelerator

TYPICAL USES:

- Light auto traffic
- Pedestrian and vehicular traffic decks
- Balconies, patios, plazas, gymnasium and pool decks
- Dairy, industrial kitchen, and food processing areas
- Spark resistant floors
- Tile underlays and shower pans
- Concrete or plywood decks
- Sloping decks
- Ship deck overlays
- Primed metal, wood, and masonry Surfaces
- Concrete dusting

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 with a 1/2 pint can of catalyst
5-gallon (19-liter) pails, with a full vial of catalyst
1-gallon (3.8 liter) can with a partial vial of catalyst

COVERAGE:

Nukote Classic spread rate is 38 ft^2/ gal (0.93 m2/liter) at 40 mil (1 mm) thickness without factoring any loss

STORAGE:

Six months in factory delivered, unopened drums at 75 ºF (24 º C). Store on pallets and keep away from extreme heat, freezing, and moisture. Opened and partially used material should be used within 7 days.

TECHNICAL DATA (All values @ 77 ºF / 25 ºC)	US	Metric
Solids by volume (ASTM D2697)	95%	95%
Volatile organic compounds (ASTM D2369)	< 0.5 lb./gal	60 gm/ lit
Theoretical coverage	38 ft^2/gal @ 40 mils	0.93 m^2/ lit @ 1mm
Specific Gravity of materials (ASTM D792)	9.01 ± 0.8 lbs./gal	1.08 ± 0.1 kg/ liter
Viscosity at 75º F/24º C in cps ±10% (ASTM D4878)	2000-3000	2000-3000
Shelf life @ 77 ºF /25 ºC	6 months	6 months
Tensile strength (ASTM D412-C)	1350 ± 150 psi	9.3 ± 1 MPa
Elongation (ASTM D412-C)	675 ± 100 %	675 ± 100 %
Hardness (ASTM D2240)	55 -65 Shore A	55 -65 Shore A
Flexibility -2mm mandrel (ASTM D522)	Pass	Pass
Water absorption -24 hours (ASTM D471)	~ 1 %	~ 1 %
Crack Bridging @ -13 ºF/-25 ºC (ASTM C1305), 25 cycles	Pass	Pass
Tear strength (ASTM D624)	250 ± 25 pli	44 ± 5 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	Mix catalyst as per pack size and dosage and add water at 4:1 ratio (4 parts product: 1 part water)	
Gel time	15 to 30 minutes	
Recoat time	3 to 4 hours	
Maximum over coat time	24 hours	
Properties and values are highly dependent on equipment, spray gun, mix chamber temperature, pressure and related parameters. Variations are possible and expected. Values included above are per NCSI standard lab practices & methodology of draw down film at various dry film thicknesses.		

SURFACE PREPARATION:

Concrete:

The surface of a concrete 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. Concrete surfaces require a medium sandpaper finish equal to or greater than an ICRI CSP #3.

Peel and adhesion tests are recommended.

MIXING:

NCSI does not recommend that Nukote Classic be diluted with solvents.
Before application, pre-mix Nukote Classic using a mechanical mixer (Jiffy Mixer) at slow speeds or mix for at least 5 minutes, if mixed by hand. Mix Nukote Classic thoroughly until a homogeneous mixture and color is obtained. Use care not to allow the entrapment of air into the mixture.

Optional: Add Nukote Classic catalyst (1 vial per 19-liter pail) or as directed for other pack sizes and mix until a homogeneous mixture and color is obtained. Allow mixture to stand for 5 minutes, and then mix again before applying to the substrate. Nukote classic catalyst will reduce cure time for cold temperature applications. Up to 3 vials of Nukote Classic Catalyst per 19-liter pail of Nukote classic may be used.

Mix pre-accelerated Nukote Classic with water at a ratio of 4:1 (1 Liter of Nukote classic: 0.25 Liter of water) by volume.
Mix thoroughly until water is completely combined with Nukote Classic mixture.

APPLICATION:

For best results use a squeegee or notched trowel. Airless sprayer or phenolic resin core roller may be used but extra care should be taken not to trap air which may result in bubbles.

Mix pre-accelerated Nukote Classic with water at a ratio of 4:1 (1 Liter of Nukote classic: 0.25 Liter of water) by volume. Mix thoroughly until water is completely combined with Nukote Classic mixture. Spread Nukote Classic mixture evenly over the entire deck.

Application should not be stopped part way across an area. Each application should be done in one complete step. A continuous application will ensure a smooth and level coat with no lines or streaks to disfigure the deck coating.

When Nukote Classic mixed material begins to gel, approximately 15 minutes, broadcast 14-30 mesh rubber granules into the wet membrane or allow membrane to thicken until silica sand can be broadcast without the aggregate sinking into the membrane.

- The aggregate should be dry, washed, and rounded silica in the 12-20, 16-30 or 20-40 mesh size and 6.5 Moh's scale minimum hardness as required by customer specifications or as specified in the system specifications.
- Size of the aggregate should be decided based on the skid resistance requirement of the project.
- Time for thickening is dependent on atmospheric conditions especially temperature and humidity.

- Normal usage is 20 lbs. of rubber granules p/100 sq.ft (0.98 kg/sq.m)

CURING:

Allow each coat to cure (depending on environmental conditions and temperature) a minimum of 2-4 hours and a maximum of 24 hours, before proceeding to subsequent coat. If more than 24 hours passes between coats, re-prime the surface with recommended NCSI primer before proceeding.

Re-priming is not necessary if a complete sand broadcast of aggregates to refusal has been placed during the thumbprint tacky stage. Aggregates should be broadcast to refusal while basecoat is firm but thumbprint tacky at the surface.
Nukote Classic 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:

Equipment should be cleaned with an environmentally safe solvent, as permitted under local regulations, immediately after use. Cured product may be disposed of without restriction. Containers should be disposed of according to local environmental laws and ordinances.

LIMITATIONS:

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- Do not open until ready to use, and store in a sealed container after opening.
- Should be used only as a base membrane. Nukote Classic is not UV stable and must be top coated. Not designed to withstand direct wear. Use recommended top coat suitable for the type of application.
- NCSI does not recommend that Nukote Classic be diluted with solvents.
- An aggregate of washed, dry, rounded, crystal silica sand, 16-30 mesh (0.595-1.19 mm), with 6.5+ Moh's minimum hardness or EPDM rubber granules 14-30 mesh size should be used to aid in slip-resistance. Applicator should determine mesh size based on job requirements.
- Any remaining material must be tightly sealed to protect it against curing in its container. Containers that have been opened must be used within 1 or 2 weeks since Nukote Classic is a moisture-reactive material that begins to cure when exposed to air.

WARNING:

This product contains Isocyanate.

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.