
DESCRIPTION

Nukote Staingard is a two component, aliphatic polyester polyurethane for use in moderate to severe chemical environments in indoor or outdoor applications. Nukote Staingard may be used as a standalone system or as topcoat over polyurea, polyurethane or hybrid elastomer and as ant-graffiti coatings. It offers outstanding abrasion resistance, good flexibility, color stability, chemical resistance and weather resistance.

FEATURES

- Color and gloss stability
- Excellent clean ability
- Chemical resistance
- Impact resistance
- UV stability

TYPICAL USES

- Protective coating for steel structures in chemical and corrosive environments
- Concrete floor coating in manufacturing and processing plants
- Aircraft hangar Floors
- Chemical and solvent warehouse flooring
- Laboratories and clean room
- Secondary containment of solvent and chemical tank farms
- Automotive workshops, assembly lines and garages
- Bridge, marine and industrial structures
- Vehicular and pedestrian deck coatings

COLORS

Clear, Tan, and grey. Custom colors blended to match any RAL number, are available upon request subject to minimum order quantity. Contact NCSI for availability

PACKAGING

- 5 gallon set (19 liter)
- 1 gallon set (3.8 liter)

COVERAGE

Theoretical spread rate is 200 ft²/gal @ 5 mils (0.5 m²/liter @ 125 microns) for metals. Recommended DFT for concrete is 500 microns and the spread rate is between 40-50 ft²/gal @ 20 mils (1-1.25 m²/liter @ 500 microns) on normal primed concrete. Spread rate is dependent on the porosity of concrete and the coverage will vary.

TECHNICAL DATA (All values @ 77 °F / 25 °C)	US	Metric
Solids by volume (ASTM D2697)	69%	69%
Volatile organic compounds (ASTM D2369)	2.8 lbs./gal	337gms/lit
Theoretical coverage	275 ft ² /gal @ 4 mils	6.3 m ² / lit @ 100 microns
Specific Gravity of materials (ASTM D792)	1.08 , 1.06 clear	1.08 , 1.06 clear
Viscosity at 158°F/70° C in cps ±10% (ASTM D4878)	300-700	300-700
Shelf life @ 77 °F /25 °C	12 months	12 months
Elongation (ASTM D412-C)	5-10 %	5-10 %
Hardness (ASTM D2240)	60 - 65 Shore D	60 - 65 Shore D
Flexibility (2mm mandrel ASTM D522)	Pass	Pass
Impact Resistance (ASTM G14), No Holidays	> 160 in-lb.	> 18 J (N-m)
Flash point - pensky martin	>200 °F	>93 °C
Application temperature	50 °F to 100 °F	10 °C to 40 °C
Abrasion Resistance (ASTM D4060) weight loss	< 25 mg loss Taber CS 17 wheel 1Kg/500 rev	
PROCESSING PROPERTIES (Under standard lab conditions)		
Mix Ratio V/V (A:B)	2:3 pigmented	2.35 : 3 clear
Pot life	60 to 75 minutes	
Recoat time	16 to 48 hours	
Tack free time (DFT & Temperature dependent)	3 to 4 hours	
Light 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>		

STORAGE

Twelve months in factory delivered, unopened drums. Store on pallets and keep away from extreme heat, freezing, and moisture. Store at temperatures between 50 °F to 100 °F (10 °C to 37 °C).

MIXING

Nukote staingard must not be diluted under any circumstances. Nukote staingard side-A and side-B should be mixed individually before combining. Add side-B to side-A while mixing, using a mechanical mixer at medium speed. Mix until a homogenous mixture and color is obtained (at least 5 minutes) and mix frequently during application to maintain uniform color. Use care to scrape the sides of the container to ensure that no unmixed material remains.

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.

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 staingard can be applied by can be applied by several methods including high-pressure plural component spray systems, HVLP spray systems, air-assisted cup gun spray systems , airless spray, roller, and or a brush. An airless pump 30:1 or higher is recommended. Nukote staingard is applied over properly primed, repaired substrates in the method most suitable for the application type at a DFT of 20 mils (500 microns) and higher for abusive application. The recommended tip size is 0.017-0.019. Use solvent resistant bristles or Mohair. Use solvent resistant Phenolic core or equal natural roller covers. For an anti-skid surface, broadcast clean, dry, fine aggregate into the first coat of staingard. Sweep off the excess aggregate after the first coat has cured and apply the second coat to seal and cover aggregates.

EQUIPMENT CLEAN UP

Equipment should be cleaned with an environmentally safe solvent, as permitted under local regulations, immediately after use. Cleans well with methyl ethyl ketone or acetone. Clean spills or drips with solvent while still wet.

LIMITATIONS

Keep away from sparks, open flame, pilot lights and other sources of ignition. Protect from moisture. Apply when surface and ambient temperatures are between 50°F and 100°F (10°C and 40°C) and the humidity below 85%. Do not build high film thicknesses in a single application as this may cause solvent entrapment leading to blistering. A test patch for application on existing coatings is highly recommended. Not suitable for continuous immersion application. Provide adequate ventilation and ensure proper protective and safety equipment during application. Keep containers tightly closed. Containers that have been opened must be used as soon as possible. Do not dilute under any circumstance. Read and consult SDS in all cases. Avoid partial mixing of 1 gallon set. Mix and use the entire quantity

WARNING

This product contains Isocyanate and solvent.

CHEMICAL RESISTANCE

Each Nukote product formulation has varying levels of resistance to specific chemicals. Please review the chemical test data included in the Nukote Test Book for general resistance to specific chemicals at specific concentration levels.

Chemical concentrations are complex and when combined with temperatures above ambient levels this complexity increases exponentially.

Contact Nukote Technical Personnel for specific recommendations for chemical resistance prior to specifying these products in this application type. Consult with NCSI for more details on product and chemical resistance.

The following chart is the results of product tested for chemical resistance as per ASTM D 1308

Chemicals	Resistance	Chemicals	Resistance
Hydrochloric acid up to 10%	R	Ethyl alcohol 95%	R
Sulphuric Acid 10%	R	Mineral spirits	R
Phosphoric Acid 20%	R	Xylene	R
Citric Acid 5%	R	Toluene	RC
Nitric acid 5%	R	Skydrol	R
Detergents	R	Propylene Glycol	R
Acetic Acid	RC	Diesel Fuel, Gasoline (unleaded)	R
Detergents	R	Motor Oil, Brake Oil	R
Nitric acid 5%	R	Hydraulic Oil	R
Vegetable Oil	R		

R- Resistant extended contact, RC – Short term exposer ,splashes and spills Slight surface change,discolouration may occur

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.