
DESCRIPTION:

NUKOTE LP is NCSI's low pressure high performance polyurea designed and developed to perform well for general waterproofing applications and corrosion protection on steel, concrete, and many other primed substrates. Nukote LP is a fast set, rapid curing modified polyurea designed for use in application on concrete, steel or other substrates that do not require the full physical properties of other specially formulated polyurea. Nukote LP provides excellent adhesion to most substrates when used with a suitable Nukote primer.

FEATURES:

- 100% solids with zero VOC
- Fast reactivity and cure time resulting in almost immediate return-to-service time
- Performs in constant process temperatures from -20 °F to 200 °F (-30 °C to 90 °C)
- Good elongation and tear properties
- Seamless, resilient, flexible and durable
- Good corrosion protection
- High impact and abrasion resistance
- Continuous thermal stability
- Resistant to many solvents, acids and alkalis (consult NCSI)
- Low permeability waterproofing membrane

TYPICAL USES:

- Truck bed, Trailers and Vehicle liners
- General waterproofing
- Cargo holds
- Truck Bed Surfaces
- Boat Linings
- Mold castings
- Waterproof decking
- Encapsulation of Fiberglass bodies
- Can be applied on Concrete, Steel, Wood, Aluminum, Brass, Copper, Galvanized surfaces, Fiberglass, Plastic foams, Textile, Canvas, Fabrics, Stainless Steel, Cast Iron, ...

COLORS:

Clear/Neutral or Black. Custom colors, blended to match any RAL number, are available upon request subject to minimum quantity.

PACKAGING:

100-gallon (380-liter) drum sets, shipped in metal drums of 50 gallons (190 liters) each of side A and side B.
10-gallon (38-liter) kits, shipped in plastic pails of 5 gallons (19 liters) each of side A and side B.

COVERAGE:

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

Calculation for theoretical coverage: 40 ft²/gal @ 40 mils (1 m²/liter @ 1mm).

STORAGE:

Six 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). If stored for a long period of time, rotate Part-A and Part-B drums regularly

TECHNICAL DATA (All values @ 77 °F / 25 °C)	US	Metric
Solids by volume (ASTM D2697)	100%	100%
Volatile organic compounds (ASTM D2369)	0 lb./gal	0 gm/ lit
Theoretical coverage	40 ft ² /gal @ 40 mils	1m ² / lit @ 1mm
Specific Gravity of materials (ASTM D792)	A: 9.57, B: 8.49 lbs./gal	A: 1.15, B: 1.02 kg/ liter
Viscosity at 80° F/27° C in cps ±10% (ASTM D4878)	A-450±50, B-800±100	A-450±50, B-800±100
Shelf life @ 77 °F /25 °C	6 months	6 months
Tensile strength (ASTM D412-C)	2000±300 psi	14±2 MPa
Elongation (ASTM D412-C)	250±50 %	250±50 %
Hardness (ASTM D2240)	91 to 93 Shore A	91 to 93 Shore A
Flexibility (2mm mandrel ASTM D522)	Pass	Pass
Water absorption -24 hours (ASTM D570)	~ 1.5 %	~1.5%
Crack Bridging @ -13 °F/-25 °C (ASTM C1305), 25 cycles	Pass	Pass
Tear strength (ASTM D624)	175 to 200 pli	31 to 35 kN/m
Impact Resistance (ASTM G14), No Holidays	> 200 in-lbf	> 20 J (N-m)
Flash point Pensky Martin	>200 °F	>93 °C
Service temperature (Dry)	-20 °F to 200 °F	-30 °C to 90 °C
Abrasion Resistance (ASTM D4060) weight loss	< 30 mg loss Taber CS 17 wheel 1Kg/1000 rev	
PROCESSING PROPERTIES (Under standard lab conditions)		
Mix Ratio V/V	1:1	
Gel time	12 to 16 seconds	
Tack free time (DFT & Temperature dependent)	40 to 60 seconds	
Recoat time	6 to 12 hours	
Foot traffic	1-4 hours	

Full cure 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.

MIXING:

Nukote LP might not be diluted under any circumstance. Thoroughly mix Nukote LP Part B resin material with air driven power equipment until a homogeneous mixture and color is obtained. Always use dedicated spray equipment.

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:

Nukote LP should be applied using plural component, low pressure spray mixing equipment. The simple spray equipment can have a single motor driving two separate fixed ratio proportioning pumps. Side-A and Side-B are pumped separately to a static mixing tube for air assisted or airless spray. It is recommended to use a x 24 element mixing wand/ Static spiral mixer for proper mixing.

Both Part-A and Part-B material should be preconditioned at 75°F to 80°F (23 to 27°C) before application.

Recommended surface temperature must be at least 5°F (3°C) above the dew point.

Nukote LP should be applied using plural component, low pressure spray mixing equipment with a 24 element spiral static mixer for proper mixing. Discard the static mixer and use a new one if spraying is stopped for any reason.

For optimum performance, the substrate should be abrasive blasted. Concrete substrates should be allowed to cure a minimum of 30 days. On concrete, Nukote LP should always be applied over a suitable primer for maximum adhesion. Please review your specific project with Nukote technicians.

Due to its aromatic composition, Nukote LP tend to yellow or darken in color and will become flat after exposure to UV light. Nukote LP may be top coated within twelve hours of application with an aliphatic polyurethane, polyaspartic polyurea coating for a colorfast finish.

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. Adding a nitrogen blanket is strongly recommended for the ‘A’ component when storing after opening. Both Part-A and Part-B containers must be fitted with a desiccant device during use.

WARNING:

This product contains Isocyanate and curatives

CHEMICAL RESISTANCE:

Each Nukote product formulation has varying levels of resistance to specific chemicals. Please review the chemical immersion 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 Polyurea spillages in chemicals and tested as per modified ASTM D 3912.

Chemicals	Resistance	Chemicals	Resistance
Hydrochloric acid upto 10%	R	Ammonium Hydroxide 20%	R
Sulphuric Acid 15%	R	Ammonium Hydroxide 50%	RC
Phosphoric Acid 10%	R	Pottasium Hydroxide 10%	R
Acetic Acid 10%	R	Pottasium Hydroxide 20%	RC
Sea water	R	Sodium Hydroxide 20%	R
Waste Water	R	De ionized Water	R
Water @ 176 °F (80 °C)	R	Diesel Fuel, Gasoline (unleaded)	R
Hydrogen Sulphide (gas)	R	Motor Oil, Brake Oil	RC
Sodium Hydroxide-50%	RC	Hydraulic Oil	R

R = Resistant RC = Slight surface change or discolouration with no loss of hardness

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.