
DESCRIPTION:

Nukote Protec ALU is an aliphatic, single component, liquid applied, moisture cured, urethane topcoat for polyurea or polyurethane or Hybrid elastomeric waterproofing membrane systems. Nukote Protec ALU may be used as a standalone coating in light duty applications. It offers good flexibility, color stability and weather resistance.

FEATURES:

- Durable
- UV Stable
- Excellent Weather ability
- Good color and gloss retention

TYPICAL USES:

- Top coat in pedestrian traffic
- Top coat in light vehicular traffic
- Protective coating for concrete, masonry, plywood, metal, rubber, ... surfaces
- Top coat for aromatic polyurea and polyurethane elastomers
- Resealing of existing polyurea and polyurethane
- Concrete or plywood decks

COLORS:

Clear, dolphin grey, stone grey, battleship grey, tan, Indian sand, and ash brown. Tint base with separate color packs are available. Other RAL colors are available subject to minimum quantity.

PACKAGING:

1-gallon (3.8 liters)
5-gallons (19 liters)
50-gallons (190 liters)

COVERAGE:

100 ft²/gal @ 12 mils (2.5 m²/liter @ 305 micron) each layer. May require more than one coat.

Coverage will be lower on subsequent coats or on aggregate broadcasted surface.

STORAGE:

Twelve months in factory delivered, unopened drums. Store on pallets and keep away from extreme heat, freezing, and moisture. Store at temperatures between 60 °F - 95 °F (15 °C - 35 °C).

MIXING:

Nukote Protec ALU might not be diluted under any circumstances. When using the tint base, one quart (0.95 liter) color pack is provided and should be premixed before adding to tint base. Before application, mix Nukote Protec ALU using a mechanical mixer (Jiffy Mixer) at slow speeds for at least five minutes. Mix Nukote Protec ALU thoroughly until a homogeneous mixture and color is obtained.

TECHNICAL DATA (All values @ 77 °F / 25 °C)	US	Metric
Solids by volume (ASTM D2697)	74%	74%
Volatile organic compounds (ASTM D2369)	1.88 lbs./gal	255 gr/lit
Theoretical coverage	100 ft ² /gal @ 12 mils	2.5 m ² /lit@305 microns
Specific Gravity (ASTM D792)	Mixed: 9.68 lbs./gal	Mixed: 1.16 kg/ liter
Viscosity at 77 °F /25 °C in cps ±10% (ASTM D4878)	2500 ± 700	2500 ± 700
Shelf life @ 77 °F /25 °C	12 months	12 months
Elongation (ASTM D412-C)	200 ± 50 %	200 ± 50 %
Tensile strength (ASTM D412-C)	2700 ± 300 psi	18.6 ± 2 MPa
Hardness (ASTM D2240)	90 ± 5 Shore A	90 ± 5 Shore A
Flexibility (2mm mandrel ASTM D522)	Pass	Pass
Tear strength (ASTM D642)	400 ± 50 pli	70 ± 9 kN/m
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	One component. Accelerator may be required in adverse weather conditions. one part of Nukote Hardener in a 5-gallon pail of Nukote Protec ALU	
Pot life (1 gallon)	2 - 3hours	
Recoat interval (minimum, maximum)	16 hours and 48 hours	
Light foot traffic	24 hours	
<i>Properties and values are highly dependent on equipment, spray gun, mix chamber temperature, pressure and related parameters. Values are slightly different for clear. 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...

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 first coat of Nukote Protec ALU should be applied as soon as the base coat is ready to receive the protective coat. For best results, airless sprayer or Phenolic resin core roller may be used but extra care should be taken not to cause air bubbles. Apply Nukote Protec ALU evenly on entire deck to achieve 12 mils (305 microns) DFT. After 16-24 hours, proceed to the second coat or as specified. Nukote Protec ALU may require more than one coat depending on the job specifications and requirements. When estimating material requirements, coverage rates tend to increase for subsequent coats. To obtain proper adhesion between coats it is imperative that re-coating be done within 24-48 hours depending on ambient conditions.

At 75°F (24°C) and 50% relative humidity, allow each coat to cure a minimum of 16-24 hours. Cure time will vary depending on temperature and humidity. If more than 48 hours passes between coats, re-prime the surface with Nukote IC Prime, inter coat primer before proceeding.

Allow 24 hours before permitting light pedestrian traffic and at least 72 hours before permitting heavy pedestrian or vehicular traffic on to the finished surface.

Uncured Nukote Protec ALU 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.

A catalyst may be required to accelerate Nukote Protec ALU curing, in adverse weather conditions. If accelerated curing is required, add one part of Nukote Hardener in a 5-gallon pail of Nukote Protec ALU and mix thoroughly. This accelerated mix will cure in 6-8 hours at 75 °F (24 °C) and 50% relative humidity.

For an anti-skid surface, broadcast clean, dry, fine aggregate into the first coat of Protec ALU. 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. Clean spills or drips with solvent while still wet.

LIMITATIONS:

Do not open until ready to use, and store in a sealed container after opening. Containers that have been opened must be used as soon as possible. Surfaces must be dry, clean and free of foreign matter. Surface may be slippery when wet. Nukote Protec ALU may lose sheen and become flat and stained over time. Nukote Protec ALU has limited chemical resistance properties.

Clear coating may turn opaque and cloudy due to moisture penetration, especially in exterior applications.

WARNING:

This product contains Isocyanate and solvent.

WARRANTIES AND DISCLAIMERS:

Nukote Coating Systems International, a Nevada, USA Corporation warrants that 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.