DESCRIPTION:

Nukote Metal Prime II is a two component, 100% solids, liquid applied surface tolerant primer. This universal surface tolerant primer has been developed for use on carbon steel, non-ferrous metal, fibreglass, PVC pipe, as well as concrete and masonry. The Primer is suitable to be used with Potable water certified products.

Nukote Metal Prime II is suitable for Power tool prepared substrate to St 2 when environmental, economic or safety concerns restrict abrasive blast cleaning. The extraordinary penetrating properties of Metal Prime II provide exceptional means for reinforcing rusty steel substrates insuring adhesion of subsequent coatings. Improves the effectiveness and efficiency of the coating by penetrating and sealing crevices, joints, back-to-back angles of existing structures and edges of old coatings, improving the service life of the maintenance system. Also serves to seal aged "White Rusted" zinc surfaces for re-coating. Consult with NCS for special applications.

FEATURES:

- 100% solids
- Very low viscosity
- Surface Tolerant Primer Sealer
- Applies easily by brush, roller or spray
- Cures to a tough, water resistant coating
- Penetrates surface rust, crevices, and back-to-back angles
- Penetrates pores/small cracks in masonry and concrete
- Formulated without lead, chromate or mercury components
- Reinforces rusty steel, masonry and aged "White Rusted" zinc surfaces.
- No shrinkage

TYPICAL USES:

- To be used as a primer over Carbon Steel, Galvanized Steel, Aluminum, Existing Coating, and Concrete.
- To be top-coated with Nukote's plural component spray systems, polyaspartic topcoats, moisture cured polyurethane systems, etc.

COLORS:

Grey with a medium sheen

Side-A: Grey, Side-B: Clear.

PACKAGING:

3-gallon (11.34-liter) kit: 2 gallons (7.6-liter) of Side-A and 1 gallon (3.78-liter) of Side-B.

15-gallon (57-liter) kit: Two 5-gallon (19-liter) pails of Side-A and one 5-gallon (19-liter) pail of Side-B.

COVERAGE:

Nukote Metal Prime II spread rate is 300 ft^2/ gal at 5 mils (7.36 m2/liter at 127 microns) thickness without factoring any loss.

STORAGE:

Twelve months in factory delivered, unopened drums. Store on pallets and keep away from extreme heat, freezing, and moisture.

TECHNICAL DATA (All values @ 77 ºF / 25 ºC)	US	Metric
Solids by volume (ASTM D2697)	100%	100%
Volatile organic compounds (ASTM D2369)	0 lb./gal	0 gm/ lit
Theoretical coverage	366 ft^2/gal @ 4 mils	9 m^2/lit@100 microns
Specific Gravity of materials (ASTM D792)	A: 9.1, B: 8.93 lbs./gal	A:1.09, B:1.07kg/ liter
Viscosity at 77 ºF /25 ºC in cps ±10% (ASTM D4878)	Mix: 600±50	Mix: 600±50
Sag resistance at 77 ºF /25 ºC	5-6 mils	127-152 microns
Hardness (ASTM D2240)	70±5 shore D	70±5 shore D
Pull off adhesion to concrete (ASTM D7234)	>500 psi	>3.5 MPa
Pull off adhesion to steel (ASTM D4541)	>900 psi	>6 MPa
Shelf life @ 77 ºF /25 ºC	12 months	12 months
Flash point Pensky Martin	200 ºF	93 ºC
PROCESSING PROPERTIES (Under standard lab conditions)		
Mix Ratio V/V	2 A:1 B	
Pot life	20 to 30 minutes	
Tack free time (DFT & Temperature dependent)	2 to 4 hours	
Recoat time	12 to 36 hours	
Properties and values are highly dependent on equipment, spray gun, mix chamber temperature, pressure and related parameters. Variations are possible and expected.		

MIXING:

The volume mixing ratio is 2 parts side-A liquid to 1 part side-B liquid. Nukote Metal Prime II Side-A and Side-B should be thoroughly mixed individually prior to combining. The combined components should be thoroughly mixed using mechanical mixer at slow speed or for at least 5 minutes if mixed by hand.

Nukote Metal Prime II may be diluted with either PM Acetate or MEK within the regional air pollution regulations. Clean all application equipment with xylene, MEK or other appropriate solvents. Power stir product until uniform color appears, approximately 5 minutes.

SURFACE PREPARATION:

Surface Preparation Method:
Carbon Steel: SSPC-SP-2, 3, 6 or SP-12 (WJ-3).
Aluminum: Alondine®, Alumiprep® or light abrasive blast.
Galvanized Steel: Galvaprep or light abrasive blast.
Concrete: SSPC-SP-7 Brush-Off Blast.

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. 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:

Can be applied utilizing an airless sprayer, conventional spray equipment, brush, or phenolic resin core roller. Surface temperature should be between 60-95°F (15-35°C) and at least 5 °F (3 °C) above the dew point. Nukote Metal Prime II is very sensitive to heat and moisture. High temperatures and/or high humidity will significantly accelerate the cure time and pot life. Use caution in batch sizes and thickness of application. Low temperature and/or low humidity extend the cure time.

Nukote Metal Prime II should be applied at the rate of 1 gallon (mixture of Side-A & Side-B)/300 sq. ft. (0.14 liters/m²). Coverage rate will depend on surface roughness and porosity.

Recoat schedule is 2-36 hours dependent upon environment.

Airless Spray: Use Graco 28:1 pump or higher, Binks “Airless” spray gun with Reversa-Clean 0.017-0.019 spray tips with a 1” fluid line, adjust pump pressure to the lowest possible setting that provides proper atomization. Equipment of equal performance is acceptable.

Conventional Spray: Variations of conventional production spray equipment such as pressure pot, air assisted airless or high volume, low pressure systems as supplied by Binks, Graco, Nordson, Devilbiss or equal may be used. See Specification Guide for additional information.

Brush: Use mohair or natural bristle brush with feather edge.

Roller: Use phenolic core, short nap sheepskin or equal natural roller covers.

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.
Nukote Metal Prime II is difficult to clean up after it has cured. Equipment should be cleaned with an environmentally safe solvent, as permitted under local regulations, immediately after use.

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.
Not UV stable.

WARNING:

This product contains epoxy and curatives.

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.