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## DESCRIPTION

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Premera PAM is a high solids, aliphatic polyaspartic ester based moisture insensitive polyurea coating. It is a low VOC, high solids, rapid cure primer and finish, offering excellent anticorrosive protection in aggressive and corrosive environment. This product can also be used as a top coat for wood, urethane foam, concrete, concrete block, masonry, brick and other types of prepared and primed surfaces. Premera PAM is extremely stain resistant with a high gloss finish and displays excellent UV weathering and protection characteristics. The product can be applied in temperatures ranging from -4 °F to 140 °F (-20 °C to 60 °C). When fully cured, Premera PAM will produce a highly abrasion resistant, high-gloss, chemical resistant smooth finish. As a top coat Premera PAM will provide color stability and added UV protection and durability to numerous aromatic base coats.

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## FEATURES

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- High solids , Low VOC
- Fast Cure, high productivity , high film build up in single coat
- High gloss finish
- Low temperature curing -4 °F (-20 °C )
- Moisture insensitive
- Non yellowing and good weathering
- Adheres well to Epoxy, polyurethane, metal, concrete and other primed substrates
- Displays excellent UV resistance
- Flexible
- Stain Resistance
- Excellent corrosion protection

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## TYPICAL USES

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- Architectural Finishes and structural Protection
- Protective coating for steel ,concrete structures in abrasive, chemical and corrosive environment
- Protective coating in aggressive processing plants and industries
- Metal Fabrication and Online Shop painting Facilities
- Railcars, coaches, Wagons, Marine vessels and other utility vehicles
- Electric Poles, Wind mills, offshore structures,
- Food processing areas, Industrial kitchens and Cold storages
- Pharmaceuticals as an Aseptic coating for Sterile areas
- Laboratories and clean room coating
- Amusement and water park facades and features

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## COLORS

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

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## PACKAGING

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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

<b>TECHNICAL DATA (All values @ 77 °F / 25 °C)</b>	<b>US</b>	<b>Metric</b>
Solids by volume (ASTM D2697)	91 %	91 %
Volatile organic compounds (ASTM D2369)*	0.56 lbs./gal	70 gm/lit
Theoretical coverage	370 ft <sup>2</sup> /gal @ 4 mils	9.1 m <sup>2</sup> / lit @ 100 microns
Specific Gravity of materials (ASTM D792) ±5%	A: 9.51, B: 10.7 lbs./gal	A: 1.10, B: 1.30 kg/ liter
Viscosity at 77 °F /25 °C in cps (ASTM D4878)	A-300±100, B-1400±200	A-300±100, B-1400±200
Shelf life @ 77 °F /25 °C	12 to 15 Months	12 to 15 Months
Elongation (ASTM D412-C)	30%-40 %	30%-40 %
Tensile Strength (ASTM D412-C)	1200-1500	8 – 12 MPa
Hardness (ASTM D2240)	55 – 60 Shore D	55- 60 Shore D
Tear strength (ASTM D 624)	225-285 Pli	40-50 kN/m
Flexibility (2mm mandrel ASTM D522)	Pass	Pass
Impact Resistance (ASTM G14), No Holidays	> 175 in-lb.	> 18 J (N-m)
Flash point - pensky martin	>200 °F	>93 °C
Application temperature	-20 °F to 140° F	-28 °C to 60° C
Abrasion Resistance (ASTM D4060) weight loss	< 30 mg loss Taber CS 17 wheel 1Kg/1000 rev	
<b>PROCESSING PROPERTIES (Under standard lab conditions) ( @ 77 °F / 25 °C)</b>		
Mix Ratio V/V	1 : 1	
Pot life (1 pint/liter)	25-30 minutes	
Tack free time ( DFT & Temperature dependent)	45 – 60 minutes	
Maximum recoat time	36 hours	
<b>Light Foot Traffic</b>	8 hours	
Heavy pedestrian traffic	24 hours	
<i>Properties and values are highly dependent on equipment, spray gun, mix chamber temperature, pressure and related parameters. Values are for 1 day cure and Variations are possible and expected over time...</i>		

## COVERAGE

Theoretical spread rate is 106 ft<sup>2</sup>/gal at 14 mils (2.6 m<sup>2</sup>/liter at 350 microns) for metals. Recommended DFT for concrete as stand-alone is minimum 20 mils (500 microns) and the spread rate is about 75 ft<sup>2</sup>/gal (1.85 m<sup>2</sup>/liter) on normal primed concrete. Spread rate is dependent on the porosity of concrete and the coverage will vary.

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## **STORAGE**

Twelve to fifteen 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). Avoid cyclic temperature and freezing by all means.

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## **MIXING**

Premera PAM Part A and Part B should be mixed individually before combining. Add Part B to Part 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. Premera PAM is ready to be applied but 5% thinner may be added when utilizing airless spray equipment. Mix only the quantity that can be used during the pot life. Discard material when the mixed material start gelling and do not try to re-use by adding thinner. Mixing this product manually by hand is not recommended.

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## **SURFACE PREPARATION**

Oil ,grease, etc., shall be removed by means of solvent cleaning preferably by high-pressure water jetting or steam with a water soluble degreasing cleaning agent and rinsed and cleaned with fresh water. Solvent cleaning where specified, shall be in accordance with SSPC-SP-1 'Solvent Cleaning'.

### **Abrasive Blasting**

Mill scale, rust, corrosion products, paint or any other foreign matter shall be removed by blast cleaning to the grades specified. The surface to be coated or lined shall be blast cleaned by centrifugal or air blast cleaning methods, then vacuum cleaned or blown off to achieve the following standards: Cleanliness shall be equal to Sa 2.5 of Swedish Standard SIS 05 5900 (or ISO 8501-1) or SPC-SP 10/NACE No. 2, Near-White Blast Cleaning, The profile produced by blast cleaning shall be angular and shall have an average profile between 75 and 100 microns (3-4 mils).

### **Power Tool Cleaning**

Metal surfaces for which blast cleaning is specified but which because of their location cannot be open blasted shall be prepared wherever practicable by vacuum/blasting or power tools as per ISO 8504-3:1993 or SSPC-SP 3, Power Tool Cleaning and only with the approval of Nukote.

### **Stainless Steel and Galvanized and Non-ferrous Surfaces**

Require thorough degreasing by solvent cleaning to ISO-8501 or SSPC-SP-1 or by high-pressure water jetting after applying a biodegradable detergent, rinse with fresh water. The surface may be prepared for coating application by keying the surface by hand or power methods or by light blast cleaning using suitable abrasives. Stainless steel surfaces shall not be treated with carbon steel cleaning tools. Zinc salts shall be removed from galvanised surfaces by jetting with fresh water and suitable solvent followed by scrubbing with stiff bristle brushes or by abrasive paper.

Galvanised surfaces shall be sweep blasted to a 20-25 microns profile after solvent wash. Areas of damaged galvanising shall be lightly power tool cleaned to ISO 8504-3 St 3 in preparation for treating with an approved zinc-rich epoxy primer.

#### **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.

*Refer to NCSI surface preparation manual for detailed procedures for different types of substrates.*

#### **APPLICATION**

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This product 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, or brush. An airless pump 45:1 or higher is recommended. Premera PAM is applied over properly primed, repaired substrates in the method most suitable for the application type at a DFT of 14 mils (350 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 PAM. Sweep off the excess aggregates after the first coat has cured and apply the second coat to seal and cover aggregates.

#### **EQUIPMENT CLEAN UP**

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

#### **LIMITATIONS**

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Keep away from sparks, open flame, pilot lights and other sources of ignition. Protect from moisture. It is best to apply when surface and ambient temperatures are between 50°F and 100°F (10°C and 40°C) and the humidity below 85%. 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.

#### **WARNING**

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This product contains Isocyanate and curatives. US DOT classifies this product as PAINT, DG, Class 3, and UN 1263. PG 111, Flammable Liquid

#### **CHEMICAL RESISTANCE**

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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	Ammonium Hydroxide 20%	R
Sulphuric Acid 10%	R	Ammonium Hydroxide 50%	RC
Phosphoric Acid 10%	R	Potassium Hydroxide 20%	R
Citric Acid 5%	R	Potassium Hydroxide 50%	RC
Acetic Acid 10%	RC	Diesel Fuel, Gasoline (unleaded)	R
Detergents	R	Motor Oil, Brake Oil	R
Seawater	R	Hydraulic Oil	R

**R- Resistant extended contact, RC – Short term exposer ,splashes and spills slight surface change,discolouration may occur. Not suitable in immersion**

### **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.*