



NEPTUNE

GLOSS URETHANE TECHNICAL DATA SHEET

(May 2023)

Product Description

Neptune 90 Gloss is a premium two component, low VOC, low odor, high performance, water-based, water reducible, non-yellowing, aliphatic polyester urethane coating. **Neptune 90 Gloss** is a high gloss coating with excellent UV, chemical and abrasion resistance. The Gloss is a flexible urethane used for interior and exterior applications.

- High Gloss – Clear & Colors
- Low VOCs – Less than 30 g/l
- Upon mixing Parts A & B – mixture has no free monomers

Direct to most surfaces without the need of a primer, including:

- Concrete
- Tile & Grout
- Terrazzo
- Steel & Metal
- Wood
- VCT, Vinyl Sheeting & LVT
- Fiberglass
- Previously Painted Surfaces

Recommended Markets for Interior & Exterior Use:

Airports / Transportation	Industrial Equipment
Amusement / Theme Parks	Marine Industry
Anti-Graffiti Systems	Power Plants
Auto Dealerships	Pulp & Paper
Chemical & Petrochemical	Railcar / Transport Vehicle
Commercial Buildings	Restaurant / Food Service
Education	Storage Tanks
Food & Beverage Industry	Transmission Pipelines
Healthcare / Pharmaceutical	Warehouse / Manufacturing
Hospitality	Waste Water / Municipal
Suitable for use in USDA Inspected Facilities	

Additional Information

Visit our website for additional literature and information, including, marketing literature, pictures, training tools, ROIs and videos. www.premiersurfacesinc.com

Product Characteristics

Finish:	Up to 95 Gloss (60° Angle)
Color:	Clear & Colors (see color card)
Weight Solids (Clear):	55% before reduced
Weight Solids (Color):	Range of 53-59% (note 1)
Volume Solids (Clear):	48% ±3%
Volume Solids (Color):	Range of 58-65% (note 1)
VOCs (Clear):	11 g/l
VOCs (Color):	Range of 15-25 g/l (note 2)
Free Isocyanate (HDI) GCMS:	< 0.036%
Recommended Spreading Rate Per Coat:	
• Vertical Surfaces	Wet mils: 3.0 – 5.0 Dry mils: 2.0 – 3.25
• Horizontal Surfaces	Wet mils: 3.0 – 6.0 Dry mils: 2.0 – 3.0
• Actual Spread Rate:	200 – 400 sq. ft. per gallon
Application Viscosity:	65-75 KU catalyzed & reduced
Drying Schedule at 75° F:	
• To Touch:	6-8 Hours (Note 3)
• To Handle:	8-10 Hours
• To Walk On:	10-12 Hours
• Full Cure:	2 Days
Pot Life at 75° F:	1 ½ Hours (90 minutes)
Sweat-In/Induction Time:	2 Minutes
Shelf Life:	12 Months @ 75° F
Flashpoint:	> 185 ° F
Recoat Times at 75° F:	Within 24 hours lightly abrade with 160 mesh screen. After 24 hours, sand with 120 mesh screen.

Note 1: Depends on the color

Note 2: Excludes the colorant and depends on the color

Note 3: By using Accelerator, dry times can be reduced by half or more, depending on interior or exterior application and temperature

Performance Characteristics

Substrate Tested:	Steel
Surface Preparation:	Wash with water-based biodegradable neutral cleaner Direct to Surface (no primer)
Application:	Direct to Surface (no primer)
Tensile Adhesion: (ASTM D4541)	2,473-2,609 psi
Abrasion Resistance: (ASTM D4060)	10-20 mg loss
Condensing Humidity 1000 Hours: (ASTM D2247)	Rusting: None Blistering: None
Impact Resistance: (ASTM D2794)	160 in-lbs. (direct & in-direct)
Flexibility – Conical Bend: (ASTM D522)	% Elongation: >32% Resistance to Cracking: <1/8" diameter
Pencil Hardness: (ASTM D3363)	Scratch: H Gouge: 4H
MEK Double Rubs (Internal Testing)	1,000+
Salt Fog 1,000 Hours: (ASTM B117)	Rusting: 10 (None) Scribe Undercutting: <0.5 mm
Water Vapor Transmission: (ASTM E96)	2.43 perms
QUV 1,000 Hours: (ASTM D4587)	Passed SSPC Paint 36 Standard of:
• Color Change:	Less than 2.0 Delta E Change
• Gloss Change:	Less than 30° Gloss Change
Flame Retardant: (ASTM 84)	15 – Class 1
Smoke Retardant: (ASTM 98)	5 – Class 1
Static Dissipative:	Coatings are insulative – insulate electricity won't get better or worse, like rubber over wires.

Recommended Systems for Supreme Xtreme Gloss Urethane

Vertical Structure:	1 coat of Gloss at 4.0 – 5.0 mils WFT – Depending on porosity or profile of structure a second coat may be required.
Anti-Graffiti System:	1 coat of Gloss Pigmented followed by 1 coat of Gloss Clear. Alternative System is 2 coats of Gloss Clear.
Horizontal Surfaces:	1 coat of Gloss at 6.0 – 8.0 mils WFT – Depending on porosity and profile a second coat may be required.
Concrete:	1 coat of Gloss Pigmented or 1 coat of Gloss Clear. Alternative System is 2 coats of Gloss Clear.
Rough/ Uneven Concrete:	1 coat of Hi-Build (100% Solids) Epoxy followed by 1 coat of Gloss Clear or Pigmented.
New Wood:	1 coat of wood sealer then lightly sand followed by 1 coat of Gloss Clear. Alternative System is 2 coats of Gloss Clear.
Finished Wood:	Sand first then 1 or 2 coats of the Gloss Clear depending on desired appearance.
Steel:	1 coat of Gloss Clear or Pigmented. For extra corrosion protection, first apply 1 coat of an Epoxy Primer.
Galvanized:	1 coat of Gloss Clear or Pigmented.
Aluminum:	1 coat of Gloss Clear or Pigmented.
Inorganic Zinc Primers:	1 coat of Gloss Clear or Pigmented.

The product can be applied direct to most surfaces. If applying over a solvent-borne primer, allow the primer to adequately cure in order for all solvents to evaporate according to manufacturer recommendations for recoat times for water-based urethanes. **Recoat Note:** When applying multiple coats of Supreme Xtreme Gloss, lightly abrade between coats using a 160-mesh screen within 24 hours. After 24 hours, sand between coats with a 120-mesh screen. Abrading and sanding is done to ensure successful adhesion between coats.

Application / Storage Conditions

Conditions	Material	Surface / Ambient	Humidity	Pot Life / Dry Time	Product Storage
Normal	65° – 85°F	65° – 85°F	35 – 65%	None	75° F
Minimum	40° F	40° F	0%	These temps increase dry to touch and full cure times	40° F
Maximum	85° F	100° F	90%	These temps decrease working pot life	90° F
Do not apply the products when the substrate temperature is less than 5° F above the dew point.					

Equipment

Airless Spray: **Unit:** 2,000 – 2,400 psi **Tip:** 0.015 – 0.017
Hose: 1/4” or 3/8” **Note:** Do not use over 50 ft. hose
 Air-Assist Sprayer: **Unit:** 500 – 600 psi **Tip:** 0.015 – 0.017
Tip Pressure: As needed for proper atomization
 Conventional: DeVilbiss pressure pot with ± GA 503 gun and FF needle assembly with 777 air cap.
 Roller: Vertical surfaces use ¼” woven nap, phenolic core. Horizontal surfaces use 3/8” woven nap, phenolic core.
 Brush: Nylon polyester blend

Mixing Instructions

DO NOT SHAKE. Separately stir each component thoroughly and then mix the premeasured Part B with the Part A. Mix combined Parts A & B thoroughly by hand or slow speed drill to ensure they are blended together, but avoid incorporating air during mixing. DO NOT MIX THE PRODUCT WITH A HIGH SPEED MIXER. Allow a 2 minute “induction time” for the mixture of Parts A & B. After the 2 minutes, the mixture of Parts A & B should be poured into a larger container for water reduction and to maximize pot life.

Reduce the combined mixture of Parts A & B by slowly adding Clean Tap Water at 2% to 15% depending on application method and surface. Reduce less for vertical surfaces, high humidity and more porous substrates. Reduce more for horizontal surfaces, low humidity and smooth substrates. Do not mix more than 2 gallons of the Gloss at a time in a 5-gallon container because the product is mass sensitive; increasing mass will reduce pot life.

To commence applying the product, once properly mixed per above instructions, the product should be poured off (increasing surface area) into a roller pan or other suitable containers in order to maintain the 90-minute pot life. If spraying the product from 5-gallon containers the pot life will be reduced to 20 minutes; therefore it must be sprayed within 20 minutes. Do not mix product towards the end of or past its pot life with freshly catalyzed material; discard unused product at the end of pot life. Do not reseal containers once product is catalyzed. Clean up with Acetone or Xylene.

Surface Preparation

Steel: Remove all loose rust, dirt, grease or other contaminants per SSPC-SP1, SSPC-SP2 and SSPC-SP3 (e.g., low or high pressure with cleaner).

Aluminum: Remove all oil, grease or soap film with a neutral biodegradable detergent or emulsion cleaner.

Galvanized Metal: Remove all oil, grease or soap film with a neutral biodegradable detergent or emulsion detergent.

Concrete / Masonry / Concrete Blocks: Clean masonry substrates with neutral biodegradable detergent or emulsion cleaner to remove laitance using low or high pressure washer. For high build systems, use Acrylic/Epoxy Primer for first coat (Note: Due to the vast differences in concrete substrates consult your sales representative for the proper coating system specifications).

Wood: Sand new wood to remove any surface contaminant and to lower grain. Previously finished wood should be sanded to provide good adhesion. Test patches are recommended.

Previously Painted Surfaces: Properly clean the surface of all dust, dirt, grease and foreign matter. Apply a test patch of the Gloss to ensure adhesion of the Gloss to the previously painted surface and also to ensure there will not be any delamination of the previously painted coating from the substrate.

Note: In order to ensure optimum performance, remove the previous coating to bare substrate and then apply the proper Neptune coating system as specified by your sales representative.

Anti-Graffiti System: Follow appropriate surface preparation as noted above. For optimum performance use two coats of the Gloss Urethane.

THIS PRODUCT IS TO BE USED BY THOSE KNOWLEDGEABLE ABOUT PROPER APPLICATION METHODS. THIS PRODUCT IS FOR INDUSTRIAL USE ONLY. Read each component’s Safety Data Sheet (SDS) before use. Mixed materials may have the hazards of each individual component. Safety precautions must be strictly followed during storage, handling and use.

The seller warrants that this product conforms to label descriptions and is fit for purposes for which such goods are used. Since the use of this product is by others and additional factors affecting product performance are beyond the manufacturer’s control, the manufacturer, Majic Paints, does not guarantee the results obtained. SHOULD THIS PRODUCT FAIL TO MEET ITS SPECIFICATION MANUFACTURER WILL REPLACE THE PRODUCT OR, AT ITS OPTION, REFUND THE PURCHASE PRICE. THIS IS THE SOLE AND EXCLUSIVE REMEDY FOR ANY FAILURE OF THIS PRODUCT TO PERFORM AS WARRANTED AND SHALL ALSO CONSTITUTE LIQUIDATED DAMAGES IN CASE OF LOSS. UNDER NO CIRCUMSTANCES SHALL THE BUYER BE ENTITLED TO ANY OTHER REMEDY. REMEDIES FOR INCIDENTAL AND CONSEQUENTIAL DAMAGES ARE SPECIFICALLY EXCLUDED. The seller does not authorize any person to assume any other liability in connection with the sale for use of this product unless specifically authorized by the manufacturer.