TECHNICAL DATA SHEET

NanoPrime™ Primer Coating

PRODUCT DESCRIPTION

NanoPrime™ is a one component, waterborne, acrylic co-polymer composition that reacts and cross-links with rusted steel surfaces, clean steel, and painted steel, creating superior anticorrosive properties. ***NanoPrime***™ is non-hazardous, environmentally friendly and non-flammable.
Can be applied to damp or dry surfaces as a prime.

COLOR

Available colors subject to change:

First Coat – Primer 1	***NanoPrime***™ Brown
Second Coat – Primer 2	***NRX***™ Second Primer (light brown)
Final Coat	Compatible top coat (supplied by customer)

COMPOSITION DETAILS

Binder:	Acrylic co-polymer complex
Pigment:	Inorganic and anti-corrosion pigments
Solvents:	Water
Product Weight:	1.2 kg/l ± 0.1
Solids by Volume:	47% ± 2%
Viscosity:	1100 cps ± 100cps
VOC Content:	0 gr/l

PRACTICAL INFORMATION

Gloss Level Satin

Typical Thickness

Surfaces with old paint and rust: In areas with loose paint flakes and or rust pockets, prepare the surface to SSPC-SP-3 standard using power wire brushing and pressure wash surface to SSPC SP-WJ4. Spot prime rusty spots with approx. 125-150 microns wet film thickness; allow to dry and apply Primers 1 and 2.

Surfaces with rust less than 50 microns:

Primer #1	Wet Film Thickness	120-140 microns
	Dry Film Thickness	Approx. 50-60 microns
Primer #2	Wet Film Thickness	150-175 microns
	Dry Film Thickness	Approx. 60-70 microns

Surfaces with rust greater than 50 microns: ***NanoPrime***™ can be applied to rusted surfaces with greater than 50 microns of rust. To obtain optimal adhesion, it is recommended to clean surface to SSPC-SP-3 to remove loose rust, scale and deteriorated coatings to obtain a sound rusted surface. Pressure wash surface. Increase the wet film thickness of Primer #2 to 175 – 200 microns.

Typical Coverage 7.0 m^2/liter at 60-70 microns DFT.

Application Method

Airless spray gun: 0.017" – 0.21" Tip Size
(Gun and tip must be stainless steel)
Operating Pressure 1,800-2,200 psi (124-152 bar)
Brush: Natural Bristle
Roller: 3/8" nap, no lint cover

Recommended Drying Times at 75% Relative Humidity

Temperature	**1st Coat**	**2nd Coat**
10-15^{0}C (50-59^{0}F)	4 hours	4 hours
15-20^{0}C (59-68^{0}F)	3 hours	3 hours
+23^{0}C (+73^{0}F)	2 hours	2 hours

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COMPLETE DRYING TIME OF EACH LAYER IS IMPORTANT BEFORE APPLYING SUBSEQUENT LAYES. AT HIGHER HUMIDITY LEVELS DRYING TIME MAY INCREASE BY 25-50%.

WHEN COATING IN ENCLOSED AREAS, VENTILATION MUST BE PROVIDED TO FACILITATE PROPER DRYING.

CURING Full polymerization and strength occurs within 30-45 days.

COMPATIBILITY ***NanoPrime™*** has been tested with many low VOC high performance top coats. Contact us to determine if you're top coat has been tested for compatibility.

SURFACE PREP

Check for and remove oil and grease on the surface per SSPS-SP WJ4. If oil or grease is present, use a phosphate-free cleaner to lift, emulsify and disperse all dirt, oil grease, mildew and any other type of contaminant.

Use a pressure water spray 3,000-3,500 psi (207-241bar) and/or steel brush per SSPC-SP3 to remove all loose surface corrosion. Solid and stable rusty surfaces are acceptable for coating.

If solvents were used to remove grease and oil, remove all solvent residue per SSPC-SP1 then remove all traces of solvents per SSPC-SP WJ4 pressure water wash before applying ***NRX™*** coatings.

MIXING

NanoPrime™ is thixotropic – it settles and gets thicker during storage. Use the ***NRX™*** mixing disc with a diameter of approximately 1/3 the diameter of pail. Insert the mixing disc into the container until it is approximately 1-2 inches from the bottom of the container. Mix the coating for approximately 5-10 minutes at a rate that enables a vortex without drawing air into the coating. Coating is properly mixed when lifting the mixing disc out of the material, the coating flows smoothly like oil without dripping. As the coating will thicken in storage, confirm there is no material on the side walls or the bottom of the container during the mixing process, Re-mix daily before use.

CLEANING

Use water only. Clean equipment within 15 minutes of coating completion.

NOTE

When coating over existing paint ***NanoPrime™*** will chemically react with the existing paint and in some cases may create a white staining. This is only cosmetic and will not affect performance. Compatibility is determined by the absence of bubbles after primer #1 dries and by adhesion testing.

HEALTH & SAFETY

Refer to the safety data sheets.

STORAGE

The product should be stored away from direct sunlight at temperatures between 3^0-45^0C (37^0-113^0F). **DO NOT ALLOW TO FREEZE**

SHELF LIFE

24 months in unopened containers (depending on atmospheric conditions). Approximately 12 months in opened and resealed containers.

PACK SIZE

Unit Size	Weight
5 Liter	5.8 kg
20 Liter	23.5 kg

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WARRANTY

NanoRustX warrants our products to be free of manufacturing defects in accordance with applicable quality NanoRustX quality procedures. Liability or the products proven defective if any, is limited to the replacement of the defective product or the refund of the purchase price paid for the defective product as determined by NanoRustX. No other warranty or guarantee of any kind is made by NanoRustX expressed or implied, statutory, by operation of law or otherwise including merchantability and fitness for a particular purpose.

All information and data provided is the best of our knowledge, true and accurate and is given in good faith. However, no guarantee of results is implied as the conditions of use are beyond our control.