MATHYS BY RUST-OLEUM

NOXYDE®

DESCRIPTION AND USES

A single component, rust preventative water-based acrylic elastomeric coating.

This self priming, high build coating is designed for minimally prepared sound rusted or clean steel in mild to moderate industrial environments. Two coats are required. It can also be used on concrete, and the excellent elongation properties of 200% make it suitable for bridging small cracks. Noxyde is not recommended for exposure to most hydrocarbon solvents.

Noxyde is suitable for over-coating previous coating systems that are in good sound condition. It can also be used as an alternative to coating systems which require abrasive blast cleaning of the substrate prior to application. It has demonstrated comparable performance to zinc/epoxy coating system without the need to abrasive blast clean.

The Coatings Research Institute in Belgium has certified that Noxyde fulfills the requirements for a corrosivity class C5-M High as defined by ISO Standard 12944. This is a severe Marine Environment.

This coating complies with USDA FSIS regulatory sanitation performance standards for food establishment facilities.

PRODUCTS

20 Kg Pail	5-Gallon Pail	DESCRIPTION (Satin Finish)
201630	283085	Off-White
201631	283086	Blue Gray (Fed. 26329)
201632	283088	Beige Gray
201634	283089	Reseda Green (Fed. 24227)
201638	283090	White (RAL 9002)
202541	283091	Black
202770	283092	English Red (Fed. 20152)
261198	283093	Blue (RAL 5012)
261657	283094	Gray Green
261201	283095	Gravel Gray (RAL 7032)
261659	283096	Moss Green (RAL 6005)
210120	283097	Brown (Fed. 10059)
----	329514	Silver Gray (Fed. 26373)

CONSUMPTION

One 20 Kg pail of Noxyde will cover approximately 470 sq.ft. @ 7 mils (175µ) dry film thickness.

One 5 gallon pail of Noxyde will cover approximately 550 sq.ft. @ 7 mils (175µ) dry film thickness.

RECOMMENDED PRIMER

Noxyde is self-priming when applied to minimally prepared rusted steel and aged galvanized steel. See PRIMING Section for more information.

COMPATIBLE TOPCOATS

A topcoat is optional. Noxyde has a light after tack, which can result in slight dirt accumulation. Topcoat if a higher final gloss is desired.

9800 System DTM Urethane Mastic
9700 System 250 VOC Acrylic Polyester Urethane
3800 System DTM Acrylic Enamel
3100 System Speedy-Dry DTM Acrylic Enamel
5200 System Industrial Choice™ DTM Acrylic
Sierra Performance™ Beyond™ Multi-Purpose Acrylic Enamel
Sierra Performance™ MetalMax® DTM Acrylic Urethane
Sierra Performance™ MetalMax® Plus DTM Acrylic Urethane

PRODUCT APPLICATION

SURFACE PREPARATION

ALL SURFACES: Remove all dirt, grease, oil, salt or other contaminants by washing the surface with Krud Kutter® Original Cleaner Degreaser, detergent, or other suitable cleaner per Solvent Cleaning Standard (SSPC-SP1). Rinse thoroughly with fresh water and allow to fully dry. Thoroughly cured, hard or glossy previous coatings which are very smooth may require scuff sanding to maximize adhesion.

Hand tool (SSPC-SP-2) or power tool (SSPC-SP-3) clean to remove loose rust, scale and deteriorated coatings to obtain a sound rusted surface. A rusted surface is considered to be sound when rust can no further be removed by scraping the surface by hand using a dull putty knife under moderate pressure.

The surface may also be prepared by the use of High Pressure Water Cleaning (HP WC), minimum pressure 5,000 psi, in accordance to SSPC-SP WJ-4/NACE WJ-4 Light Cleaning.

Form: GDH-927
Rev.: 071020

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PRODUCT APPLICATION (cont.)

PRIMING

Normally not required. Exceptions include:

NEW GALVANIZED STEEL, SMOOTH METALS, SMOOTH CONCRETE AND EXISTING COATINGS: Prime with Noxyde thinned 20% with fresh water. Apply a tack coat 1.5-2.0 mils (37.5-50µ) dry, 2.5-3.5 (62.5-75µ) wet. Allow tack coat to dry 1-1.5 hours before application of full coat.

APPLICATION

Apply only when air and surface temperatures are between 46-130°F (8-55°C) and surface is at least 5°F (3°C) above dew point. The relative humidity should not be greater than 80%. The published recoat time may be extended when the relative humidity is greater than 70%. A minimum of two coats are required for a total minimum dry film thickness of 14 mils, (350µ). Apply two coats alternating color between coats to ensure complete hide and coverage.

NOTE: For best results, Noxyde must be airless spray applied.

EQUIPMENT RECOMMENDATIONS

BRUSH/ROLLER: Touch up and spot priming only. Use a good quality synthetic bristle brush/ synthetic nap roller cover.

PAINT MITT: Use only for cable application. Published DFT must be met. Extra coats may need to be applied to reach recommended DFT.

AIR-ATOMIZED SPRAY: Not Recommended

AIRLESS SPRAY:

Fluid Pressure	Fluid Tip	Filter Mesh
2,500 psi (min)	0.013-0.017	60

THINNING

Normally not required. Thin 20% with clean fresh water when using as a prime coat on non-porous or smooth concrete or metal surfaces.

CLEAN-UP

Water. Use Krud Kutter® Original Cleaner Degreaser or soap and water if material begins to dry.

PERFORMANCE CHARACTERISTICS

ABRASION RESISTANCE

METHOD: ASTM D4060, CS-17 / 1,000 g / 1,000 cycles
RESULT: 29 mg loss (0.029 g)

IMPACT RESISTANCE

METHOD: ASTM D2794
RESULT: 160 inch pounds

FLEXIBILITY

METHOD: ASTM D522, Conical mandrel
RESULT: 48%

ADHESION, PULL OFF

METHOD: ASTM D4541
RESULT: 747 psi (5.2 MPa), 2 coats @ 7 mils each, SP-10
RESULT: 652 psi (4.5 MPa), 2 coats @ 7 mils each, WJ-4

CYCLIC WEATHERING, PROHESION

METHOD: ASTM D5894, 1,000 hours
RESULTS: 2 coats @ 7 mils each, SP-10
Blistering – 10 (none)
Spontaneous delamination – none
Visual scribe creep – 0.5 mm
RESULTS: 2 coats @ 7 mils each, SP-12 (WJ-4)
Blistering – 10 (none)
Spontaneous delamination – none
Visual scribe creep – <0.5 mm

MOIST SULFUR DIOXIDE RESISTANCE

METHOD: ASTM G87, 30 cycles
RESULT: No effect

100% RELATIVE HUMIDITY EXPOSURE

METHOD: ASTM D2247, 4,000 hours
RESULT: No effect

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PHYSICAL PROPERTIES

Resin Type		Acrylic elastomeric
Pigment Types		Titanium Dioxide, Zinc Phosphate**
Solvents		Water
Weight	**Per Gallon**	10.1-11.1 lbs.
	Per Liter	1.20-1.35 kg
Solids	**Weight**	64 ± 3%
	Volume	55 ± 3%
Volatile Organic Compounds		40 g/l (0.33 lbs./gal.)
Recommended Dry Film Thickness (DFT) per Coat		7.0 mils (150-175µ) minimum
Wet Film to Achieve DFT		12.0-14.0 mils (300-350µ)
Practical Coverage at Recommended DFT (assumes 15% material loss)		110 sq.ft./gal. (2.7 m^2/l)
Dry Times at 70-80°F (21-27°C) and 50% Relative Humidity	**Tack Free**	1 hour
	Handle	2-4 hours
	Rain Resistant	3 hours
	Recoat	4 hours† with itself, 16 hours for other finish coats
	Full Cure	2 days
Dry Fall Properties		A minimum 8 foot drop is required to ensure overspray dries to a removable dust when applied at 77°F (25°C). Avoid overspray from depositing on metal surfaces above 120°F (49°C).
Elasticity at 70°F (21°C)		200%
Dry Heat Resistance*		225°F (107°C)
Shelf Life		4 years in unopened containers properly stored in a cool dry area. Do not allow to freeze.
Safety Information	**Warning!**	PROTECT FROM FREEZING. MAY CAUSE EYE AND SKIN IRRITATION. MAY BE HARMFUL IF SWALLOWED. FOR INDUSTRIAL OR COMMERCIAL USE ONLY. SEE THE PRODUCT SAFETY DATA SHEET (SDS) AND LABEL WARNINGS FOR ADDITIONAL SAFETY INFORMATION.

* Prolonged or continuous exposure to temperatures below -30°F (-34°C) and above 175°F (80°C) will have an effect on the service life of the coating.
** Other pigments may be present depending on color. Black will have a different density.
† The published recoat time with itself of 4 hours is to cover the full ambient condition application range for the coating. Variations in recoat time with itself may be acceptable under certain and specific conditions. Contact your Rust-Oleum representative.