Novocoat™ SP2000AR Ceramic Coating

SELECTION & SPECIFICATION DATA

Type
Polyamide Epoxy

Description
Novocoat SP2000AR Ceramic Coating is a highly abrasion resistant coating that forms a strong bond, even to damp and marginally prepared surfaces including tightly adhered rust. Suitable for use on concrete, steel, or surface rebuilding and restoration products, this low-friction overcoat resists build-up and offers long-term wear protection.

Features
- 100% solids, no VOCs
- Excellent immersion resistance
- Long-term wear protection
- Excellent abrasion resistance
- Meets AWWA 210 performance requirements

Uses
- Chutes
- Hoppers
- Silos

Color
Light Gray, Blue

Finish
Gloss

Dry Film Thickness (DFT)
15 – 20 mils per coat

Solids Content
99 -100% solids by volume

SUBSTRATES & SURFACE PREPARATION

All
Substrate must be clean, dry and free of contaminants.

Steel
Immersion: SSPC-SP 10/NACE 2 Near White Metal Blast with angular profile of 2.5 – 3.5 mils.

Non-immersion: SSPC-SP 6/NACE 3 Commercial Blast with angular profile of 1.5 – 3.0 mils, SSPC-SP 2 Hand Tool or SSPC-SP 3 Power Tool Cleaning are suitable for mild environments.

Self-priming on steel.

Concrete or Concrete Masonry Unit (CMU)
Concrete must be cured 28 days at 75°F (24°C) and 50% relative humidity or equivalent. Prepare surfaces in accordance with SSPC-SP 13/NACE 6. Required surface profile is CSP 3-5. Voids in concrete surfaces may require filling. Mortar joints should be cured a minimum of 15 days. Prime with Novocoat SC1100 Primer/Sealer.

Previously Painted Surfaces
Consult with ErgonArmor Technical Service.

MIXING & THINNING

Ratio
3A:1B by volume for plural spray

Mixing
For single leg spray, brush, or roller, do not mix partial kits. Power mix parts A and B separately then combine and power mix.

Thinning
Spray: Up to 6.5 oz/gal (5%) with Novocoat TH1710 Thinner
Brush: Up to 16 oz/gal (12%) with Novocoat TH1710 Thinner
Roller: Up to 16 oz/gal (12%) with Novocoat TH1710 Thinner

Pot Life
8 hours 20 minutes at 41 °F (5°C)
2 hours at 77°F (25°C)
35 minutes at 90°F (32°C)

Pot life is shorter at higher temperatures. A larger volume of mixed material will have a shorter pot life than a smaller volume.

Cleanup
MEK or Acetone

APPLICATION GUIDANCE

Spray Application
The following spray equipment has been found suitable and is available from manufacturers such as Binks, DeVilbiss and Graco.

Airless Spray Plural Component
Tip Size: 0.025 – 0.029 reversible type
Part A Fluid Line: 1/2-inch ID
Part B Fluid Line: 3/8-inch ID
Spray Line: 1/2-inch ID x 50 feet maximum
Whip: 1/4-inch – 3/8-inch ID
Whip Length: 10 feet maximum
Pump Size: 56:1 or greater
Output Pressure: 4,500 – 6,000 psi, filter removed
Static Mixer: 2 x 1/2-inch ID x 12-inch (24-inches total length) behind mixing valve
Part A Temperature: 130°F – 135°F (54°C – 57°C)
Part B Temperature: 90°F – 95°F (32°C – 35°C)

Airless Spray Single Leg or Hot Pot
Pump Size: 65:1 or greater
Output: 4,000 – 6,000 psi, filter removed
Hose Length: 50 ft x 3/8-inch
Whip Length: 10 ft x 1/4-inch

Part A resin and Part B hardener should be heated individually to 75°F – 85°F (24°C – 29°C) before mixing so product will atomize properly in delivering paint to the substrate.

Brush & Roller
This material may be applied with brush or roller. Be aware of work life when using brush or roller application.

Brush
Medium bristle brush.

Roller
Short-nap synthetic roller cover with phenolic core.

CURE SCHEDULE & RECOAT WINDOW

TEMPERATURE	MINIMUM RECOAT	MAXIMUM RECOAT	RETURN TO SERVICE (HYDROCARBON IMMERSION)
50°F	8 hours	14 days	7 days
77°F	4 hours	14 days	72 hours
140°F	1 hour	Not Recommended	4 hours

Return-to-service varies with chemical exposure. Consult ErgonArmor Technical Service for guidance.

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PACKAGING, ESTIMATING & HANDLING

ITEM#	PRODUCT	PACKAGING
M-SP1510-1GLKT-01	Novocoat SP2000AR Ceramic Coating, Light Gray Case includes tools -Part A Resin, Light Gray -Part B Hardener	1 gal (3.7 L) Kit 11 lbs (5 kg) 2.2 lbs (0.98 kg)
M-SP1510-4GLKT-01	Novocoat SP2000AR Ceramic Coating, Light Gray -Part A Resin, Light Gray -Part B Hardener	4.0 gal (15.1 L) Kit 44 lbs (20 kg) 8.6 lbs (3.9 kg)
M-SP1510-QTCS-01	Novocoat SP2000AR Ceramic Coating, Light Gray Case includes 1 mixing board Each kit includes: -Part A Resin, Light Gray -Part B Hardener -Mixing knife, spreader	4 x 2.6 lbs (1.2 kg) Kits 2.2 lbs (1 kg) 7 oz (195 g)
M-SP1550-1GLKT-01	Novocoat SP2000AR Ceramic Coating, Blue Case includes tools -Part A Resin, Blue -Part B Hardener	1 gal (3.7 L) Kit 11 lbs (5 kg) 2.2 lbs (0.98 kg)
M-SP1550-4GLKT-01	Novocoat SP2000AR Ceramic Coating, Blue -Part A Resin, Blue -Part B Hardener	4.0 gal (15.1 L) Kit 44 lbs (20 kg) 8.6 lbs (3.9 kg)
M-SP1550-QTCS-01	Novocoat SP2000AR Ceramic Coating, Blue Case includes 1 mixing board Each kit includes: -Part A Resin, Blue -Part B Hardener -Mixing knife, spreader	4 x 2.6 lbs (1.2 kg) Kits 2.2 lbs (1 kg) 7 oz (195 g)

Theoretical Coverage

100 square feet per gallon at 15 mils
80 square feet per gallon at 20 mils
Allow for loss in mixing and application.

Storage & Shelf Life

Maintain products in original packaging and sealed until ready for use. Estimated shelf life is 12 months when stored in a dry area at 70°F (21°C). Actual shelf life may vary with storage conditions.

If there is any question with respect to the quality of the components, check reactivity prior to use. For assistance consult with ErgonArmor.

SAFETY

Safety

Mixes and applications of this product present a number of hazards. Read and follow the hazard information, precautions and first aid directions on the individual product labels and safety data sheets before using.

Ventilation

Provide thorough air circulation during and after application until the material has cured when used in enclosed areas.

TYPICAL PHYSICAL PROPERTIES

PROPERTY	SYSTEM	VALUE
Dry adhesion ASTM D4541	Blasted steel 1 coat	>2,500 psi
Wet adhesion ASTM D4541 5 days 158°F (70°C) water	Blasted steel 1 coat	>2,500 psi
Abrasion ASTM D4060 1000 cycles, CS17 wheel 1000 gm load	Blasted steel 1 coat	24 mg loss
Compressive strength ASTM C109	Blasted steel 1 coat	10,000–13,000 psi
Hardness ASTM D2240	Blasted steel 1 coat	83 – 90 Shore
Meets performance requirements of AWWA C210		

SERVICE TEMPERATURE

SERVICE	MAXIMUM TEMPERATURE
Dry, continuous	220°F (104°C)
Dry, non-continuous	250°F (121°C)
Under insulation	175°F (79°C)

Temperature limitations will vary with chemical exposure. Consult ErgonArmor Technical Service for guidance.

Discoloration and loss of gloss occur above 200°F (93°C) but do not affect performance.

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