610-874-8436
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ENGINEERED RESIN SOLUTIONS

ERS 2000AR-ABRASION GUARD

LIQUID GRADE

SELECTION & SPECIFICATION DATA

Type	Polyamide Epoxy
Description	ERS 2000AR 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	Textured or smooth gloss depending upon film thickness
Dry Film Thickness (DFT)	15-25 mils. Minimum 20 mils for smooth finish.
Solids Content	99 -100% solids by volume

SUBSTRATES & SURFACE

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 Units (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 4-7. Voids in concrete surfaces may require filling. Mortar joints should be cured a minimum of 15 days. Prime with ERS 1100 Primer/Sealer.
Previously Painted Surfaces	Consult with ERS Technical Service Department

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 ERS TH1710 Thinner Brush: Up to 16 oz/gal (12%) with ERS TH1710 Thinner Roller: Up to 16 oz/gal (12%) with ERS 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)
Cleanup	MEK or Acetone

APPLICATION GUIDELINES

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: 4,500 – 6,000 psi, filter removed » Static Mixer: : 2 x 1/2-inch ID x 12-inch (24-inches total(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.

CURESCHEDULE & 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 Engineered Resin Solutions for guidance.

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COVERAGE AND SHELF LIFE

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 ERS.

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	VALUE
Dry adhesion ASTM D4541	>2,500 psi
Wet adhesion ASTM D4541 5 days 158°F (70°C) water	>2,500 psi
Taber abrasion ASTM D4060 1000 cycles, H-22 wheels dry, 1 kg load	20 mg loss 1.2 mils loss 815.8 cycles per mil loss
Compressive strength ASTM C109	10,000–13,000 psi
Hardness ASTM D2240	83 – 90 Shore
Meets the performance requirements of AWWA C210	

TEMPERATURE RESISTANCE

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

Temperature limitations will vary with chemical exposure. Consult Engineered Resin Solutions for guidance.

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