

ERS 3300-ACID GUARD

LIQUID GRADE - PASTE GRADE

Highly cross-linked, ceramic filled Novolac epoxy, designed for long term chemical resistance and corrosion protection in immersion service as a Tank or Pipe Liner.

Outstanding
Chemical Resistance
Outstanding Adhesion
Suitable for Total
and Permanent Immersion
100% Solids
2 Year Storage Life
Brush, Roller or Spray Applied
Environmentally Friendly

- » **ERS-3300** is a two component, 100% solids, Novolac epoxy, ceramic filled coating system, used for creating an outstanding corrosion and chemical resistant, protective coating system. It provides excellent protection and durability against a broad range of organic and inorganic acids, alkalis, solvents, salts and hydrocarbons, even at elevated temperatures.
- » **ERS-3300** Liquid Grade is user friendly and readily applied by brush, roller or spray.
- » **ERS-3300** is self-priming, wear resistant and designed for long term immersion service.
- » **ERS-3300** Paste Grade - design for knife or trowel application to restore heavily worn or corroded areas to their original profile.
- » **ERS-3300** Paste Grade is also used for ERS pipe wraps on acid pipe lines.

- » Acid & Caustic Storage Tank
- » Acid Leak Stoppage
- » Chemical Spill Protected
- » Brine Slurry Tanks
- » Railcars, Tankers & Frac Trucks
- » Pipe Linings
- » Pipe Wrap Systems
- » Chemical Storage
- » Secondary Containment
- » Pedestals

Chemical protection system at elevated temperatures. For tank lining and pipe wraps.

TECHNICAL DATA

Volume Capacity	231cu in per gallon		
Weight per gallon	11.50 lb.		
Coverage per gallon	160 sf @ 10 mils DFT		
Volume solids	100% (No VOC)		
Applications required	2-3 coats @ 10-12 mils each. 3-4 coats @ 5-6 mils for high temp/severe chemical service.		
Shelf Life	2 years		
Mixing Ratio		Base	Activator
	-Volume	2.5	1.0
	-Weight	4.3	1.0
Color		Light Gray on rust red	Amber

CURE TIMES

Ambient Temp.	Pot Life	Overcoat Window Min — Max	Light Load	Aqueous Immersion	Full Service
40° F	50 min.	NR	NR	NR	NR
55° F	40 min.	2 hr. — 12 hr.	28 hr.	72 hr.	7 day
75° F	30 min.	1hr. — 6 hr.	12 hr.	30 hr.	7 day
95° F	12 min.	1/2 hr. — 3 hr.	10 hr.	24 hr.	4 day

PUMP SPECIFICATIONS

Pump Ratio	Minimum Output	Minimum Hose ID	Maximum Hose Length
56:1	5,600 psi	3/8 - 1/2-in	60-ft.

PHYSICAL PROPERTIES

	Test Value T	Test method
Compressive Strength	14,000 psi	ASTM D695
Pull Off Adhesion	1,900 psi	ASTM D4541
Rockwell Hardness	86	ASTM D2240
Abrasion Resistance	32 mg	ASTM D4060 (CS17 Wheel 1kg)

CHEMICAL RESISTANCE

Ammonium Hydroxide	MEK
Aromatic & Aliphatic Solvents	MSEA
Black Liquor	Mineral Acids
Butyl Acetate	Nitric Acids (up to 10%)
Butyl Carbitol	(Many) Organic Acids
Chlorinated Solvents (except Methylene Chloride)	Phosphates Phosphoric Acid (up to 100%)
Chromic Acid up to 30%	Potassium Hydroxide
Hydrochloric Acid up to 100% (38% Hydrogen Chloride content)	Salts Sodium Hydroxide
Hydrofluoric Acid up to 8%	Sodium Hypochlorite (up to 10.5%)
Hydrogen Sulfide	Sulfides
Lithium Chloride	Sulfuric Acid (up to 98%) White Liquor

SERVICE TEMPERATURE

	Max continuous Exposure	Short Term Spike (30-60 min)
Dry Service	300°F	350°F
Under Insolation	300°	
Discoloration-May discolor above 200°F (93°C), no performance loss		

Your Local **ERS** Representative

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USING ERS-3300

Surface Preparation: ERS-3300 should only be applied to clean, dry and well-roughened surfaces. Depending on the surface, solvent clean or remove contamination by abrasive blasting, stream cleaning, high pressure water blasting, acid washing or other suitable means.

SALT-X should be used for seawater, salts, bromates, phosphates, gypsum or lime.

Metal, Steel and Iron: Remove all oil, grease or scale from the surface and, then blast with an angular grit to give a minimum of 2-3 mil profile for the following services.

Non-chemical Service	SSPC-SP6 Commercial Blast
Intermittent Splash	SSPC-SP10 near White Metal
Immersion/Abrasion	SSPC-SP5 White Metal Blast

ALUMINUM AND FRP: Use an alkaline detergent cleaner to provide a clean, uniformly textured surfaced.

Concrete: All concrete surfaces should be primed with **ERS-1100** to avoid out gassing and to increase adhesion. Although **ERS-1100** can be applied to concrete that has cured a minimum of 7 days, it is recommended that it has aged at least 28 days before coating. Wash down old concrete to remove residues and neutralize the pH before surface prep. A second wash may be required for severeservice. Sandblast, scarify or water blast to remove any form-release agent, curing agent, laitance, calcification or sealant. Two coats of **ERS-1100** may be needed to prevent bubbles on highly air-entrained concrete.

Mixing Procedure: (Mixing partial kits is not recommended.)

1. Thoroughly mix the resin before adding hardener.
2. Empty all the hardener into the resin container.
3. Mix thoroughly with a mechanical mixer (or stirrer) continue for 2 minutes after consistency is uniform. Keep blade low, to avoid trapping air.

Thinning: Thinning is not generally recommended. If thinning is necessary below 60°F, add 4 – 6 fl. oz. of MEK to the resin and mix thoroughly before adding the hardener. Do not exceed 10% solvent by volume.

Application: Pour blended coating into rolling tray or a large basting pan to a depth of 3/8-in. or less to reduce exothermic, heat generation and shortened pot-life.

1. If the ambient temperature is 85°F or higher, pot life may be as short as 15 minutes. Keep the material cool or put the tray on ice to extend life.

2. **ERS-3300** should not be applied below 40°F.

3. **ERS-3300** should not be applied (nor should blasting commence) if the relative humidity is over 85% or if the substrate is less than 5°F above dew point.

4. Apply additional coats when the previous coat will string out (pigtail) and hold its shape when touched. Second and subsequent coats must be applied before the previous coat has completely cross-linked. If the overcoat window has expired, then brush blast before the next application.

5. The same procedure applies for overlapping seams of adjacent coating to create a continuous, monolithic film. Power brush / sand the seam, if blasting is not possible.

Speed Curing: The cure time can be reduced and performance enhanced by applying heat during curing.

Clean up: Use a mixture of MIBK and butyl acetate (50/50), MEK or MIBK and xylene (50/50) for clean up. Skin can be cleaned with denatured alcohol (ethanol.)

Technical Support: The ERS engineering team is always available to provide technical support and assistance. For guidance on any question, call your local ERS rep or the ERS Engineering Center.