EQUIPMENT FOUNDATION SYSTEMS

ITW Polymer Technologies

Super Ceramic Repair Liquid

Technical Bulletin # 819F

Product Description

SUPER CERAMIC Repair Liquid is a unique ceramic filled, high build, brush able epoxy coating. Formulated for unequaled chemical and corrosion resistance with outstanding wear properties under adverse environments.

Use & Benefits

SUPER CERAMIC Repair Liquid is ideally suited for lining and resurfacing all types of severe service equipment commonly found in chemical plants, power plants, pulp & paper mills, mining operations, water treatment plants and a variety of other industrial and marine applications.

Surface Preparation

The repair area should be free of all grease, dirt and oxidation. The surface should be sandblasted to "near white" metal using an 8 to 40 mesh grit size. Grinding is suitable for small areas or when other methods are prohibited. The entire area should then be washed down with IMPAX IXT-59 Safety Solvent.

NOTE: Be careful not to touch the repair area with bare hands after solvent washing. Unit should be repaired as soon as possible after blasting to prevent oxidation.

Application Instructions

Place 5 parts resin (by volume) and 1 part hardener in a clean, smooth sided container and mix thoroughly. Material should have a streak-free dark orange color. Do not mix more than five minutes.

DO NOT mix more material than can be applied in 15 minutes.

SUPER CERAMIC Repair Liquid may then be applied with a stiff, short bristle brush or plastic squeegee. Apply a thin coat, wetting out the application surface to fill all pitted areas and sealing the metal surfaces against corrosion.

When lining new equipment, the entire interior housing should have approximately 1.5 mm (1/16") of ceramic liquid. Be certain to maintain proper clearances between housing and impeller. This preventative maintenance procedure will greatly extend the longevity of severe service equipment as well as reducing costs due to downtime.

NOTE: When applying more than one coat add the black tube of additive to the second coat to obtain a dark brown color. This will help differentiate between the coats. Top coating SUPER CERAMIC Repair Liquid with additional layers must be accomplished prior to the first layer taking a hard set - 2 hrs. @ 22°C (72°F). Once SUPER CERAMIC Repair Liquid hardens, the surface must be brush blasted or abraded to insure inter-layer bonding.

SUPER CERAMIC Repair Liquid was specifically designed for use with SUPER CERAMIC Repair Putty for restoring original equipment dimensions to severely damaged units. Refer to Bulletin #821.

Physical Properties

COMPRESSIVE STRENGTH	1190.0 kg/cm^2 (16,900 psi)	ASTM D-695
FLEXURAL STRENGTH	563.4 kg/cm2 (8000 psi)	ASTM D790
ADHESIVE TENSILE SHEAR STRENGTH	220.0 kg/cm^2 (3125 psi)	ASTM D1002
HARDNESS	Shore D = 90	
SERVICE TEMPERATURE	-73°C (-100°F) to 260°C (500°F)	

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Product Information

COLOR	Resin > Orange / Hardener > Black = Dark Orange after mixing Additive > Black = Dark Brown after mixing
COVERAGE	300 cm^3 (18 cubic inches.)
MIX RATIO	10 to 1 by weight 5 to 1 by volume
APPLICATION TEMPERATURE	13°C (55°F) to 35°C (95°F)
UNIT PACKAGING	Resin (NH): 265 cc (9 oz) in a 12 oz plastic jar Hardener (H): 38 cc (1.3 oz) in a 4 oz plastic jar
UNIT WEIGHT	Resin: 408 g (0.9 lbs) Hardener: 41 g (0.1 lbs)
SHIPPING WEIGHT	0.8 kg (1.8 lbs)
CHEMICAL RESISTANCE	Excellent against acids, bleach, and petroleum products.
CURE TIME (approximate)	24 hrs. @ 22°C (72°F)
POT LIFE	15 minutes @ 22°C (72°F)
CLEAN UP	IMPAX IXT-59 Epoxy Solvent or equal
SHELF LIFE	

Date

09/2005

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