

Technical Bulletin # 471

Product Description

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

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 or wire brushing is suitable for small areas or when other methods are prohibited. The entire area should then be washed down with 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

Place 5 parts resin and 1 part hardener (by volume) 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. 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 1/16" (1.5 mm) 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. @ 72°F (22°C). Once SUPER CERAMIC Repair Liquid hardens, the surface must be brush blasted or abraded to ensure 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 #472.

Technical Information

COLOR: Resin - Orange
Hardener - Black
(Dark Orange after mixing)
Additive - Black
(Dark Brown after mixing)

PACKAGING: 1 lb. (454 g) unit
12 lb. (5.4 kg) unit

COVERAGE: 16.5 cubic inches/lb.
(454g/270 cm³)

MIX RATIO: 10 to 1 by weight
5 to 1 by volume

CURE TIME: 24 hrs. @ 72°F (22°C)

WORKING TIME: 15 minutes @ 72°F(22°C)

ADHESIVE TENSILE SHEAR: 1 part resin to 1.75 parts aggregate by weight (ASTM D1002)

FLEXURAL STRENGTH: 8000 psi (563.4 kg/cm²)
ASTM D790

COMPRESSIVE STRENGTH: 16,900 psi (1190.0 kg/cm²)
ASTM D695

HARDNESS: Shore D = 90
ASTM D1706

USEFUL THERMAL ENVELOPE: -100°F (-73°C) to 500°F (260°C)

CHEMICAL RESISTANCE: Excellent against acids, bleach, and petroleum products.

Date

07/2006

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