

Technical Bulletin # 472

## Product Description

SUPER CERAMIC Repair Putty is a smooth, ceramic filled epoxy with exceptional wear resistance. The "no-slump" nature of SUPER CERAMIC Repair Putty makes it ideal for repairing overhead, vertical or curved surfaces.

SUPER CERAMIC Repair Putty is well suited for the repair of "severe service" pump equipment commonly found in industries such as pulp and paper mills, chemical processing, refineries and coal mining operations as well as many others.

## 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

SUPER CERAMIC Repair Putty's consistency was designed to provide a stiff mix to insure its "no-slump" capabilities when applied to overhead, vertical or curved surfaces.

Place 7 parts resin and 1 part hardener (by weight) on a clean SUPER ALLOY mat and mix thoroughly with a trowel or wide blade tool. Material should have a streak-free gray color.

NOTE: Do not mix more than 4 minutes or "no-slump" properties may diminish. Do NOT power mix.

When repairing a pump casing, the entire housing should have approximately 1/8" (3mm) of SUPER CERAMIC Repair Putty. Be sure to allow proper clearance between housing and impeller. If it is not possible to coat the entire housing, do not feather edge the SUPER CERAMIC; square off the repair area to allow at least 1/8" (3mm) application of SUPER CERAMIC Repair Putty at the edge of the damaged area.

NOTE: Do not mix more material than can be applied in 20 minutes.

Top coating SUPER CERAMIC Repair Putty with additional layers must be accomplished prior to the first layer taking a hard set – 4 hrs. @ 72°F (22°C). Once SUPER CERAMIC Repair Putty hardens, the surface must be brush blasted or abraded to ensure inter-layer bonding.

## Technical Information

COLOR:	Resin - Silver Hardener - Gray (Gray after mixing)
PACKAGING:	1 lb. (454 g) unit 12 lb. (5.4 kg) unit
COVERAGE:	17.3 cu.in./lb. (624 cc/kg)
MIX RATIO:	7 to 1 by weight 4.3 to 1 by volume
WORKING TIME:	20 minutes @ 72°F (22°C) for 1 lb. unit
ADHESIVE TENSILE SHEAR:	1,800 psi (125.4 kp/cm <sup>2</sup> )

FLEXURAL STRENGTH:	ASTM D-1002 6,600 psi (455.7 kp/cm <sup>2</sup> ) ASTM D-790
COMPRESSIVE STRENGTH:	12,700 psi (877.5 kp/cm <sup>2</sup> ) ASTM D-695
COEFFICIENT OF THERMAL EXPANSION:	24.8 X 10 <sup>6</sup> /°F 44.6 X 10 <sup>6</sup> /°C
HARDNESS:	Shore D = 90 ASTM D-1706
IZOD IMPACT:	0.28 foot pounds/inch notch ASTM D-256
USEFUL THERMAL ENVELOPE:	-100°F to 500°F (-73°C to 260°C)
CHEMICAL RESISTANCE:	Excellent against acids, bleach and petroleum products.
CURE TIME:	24 hours @ 72°F (22°C)

Date

07/2006

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