COPPS INDUSTRIES, INC.
An ISO 9001 Certified Company

TECHNICAL BULLETIN

Armor Plate Wear Compound-Regular – K-036

Description:

Armor Plate Wear Compounds are two component ceramic bead filled epoxy systems specifically designed to resist abrasive wear and corrosion in severe service conditions.

Ordering Information:

K-036-24 (24 LB Unit)

Intended Use:

Repair and protect processing equipment such as pump casings, slurry lines, pipe elbows, chutes, cyclones, fans, coal breakers, pulverizers, and other high wear areas.

Product Advantages:

Outstanding slide and impact resistance
Resistant to a wide range of chemicals
Non-Sagging when applied to vertical and overhead areas

Application Guidelines:

MAXIMUM SERVICE TEMP 350°F (177°C)
WORKING TIME 60 minutes
FUNCTIONAL CURE 12 Hours
MIX RATIO 5.4/1 by Volume (6.2/1 by weight)

Coverage:

Coverage per pound is 25in² (161cm²) at 0.5in (1.27cm) thickness. The working time of Armor Plate Wear Compound (the time you have to apply the material before it sets) will vary according to the air temperature, the temperature of the material itself, and the surface to which it is applied.

Physical Properties:

		Tests Conducted
TENSILE STRENGTH	3,000 psi	ASTM D 638
FLEXURAL STRENGTH	5,000 psi	ASTM D 790
COMPRESSIVE STRENGTH	17,000 psi	ASTM D 695
TENSILE SHEAR STRENGTH	2,000 psi	ASTM D 1002
WEAR RESISTANCE (weight loss) %	0.5	
HARDNESS, Shore D	85	ASTM D 2240

Surface Preparation:

The surface area must be free of all rust, scale, dirt, dust, grease, oil, or other contaminants. Thoroughly clean surface with a solvent to remove all contaminants. Grit blast surface area to be coated for optimal performance. If grit blast is not possible, grind with a coarse grinding wheel to white metal. For smoother surfaces or where vibration is a concern, tack weld an open mesh screen or expanded metal approximately 1/16 to 1/8 inch above the surface. Chip off welding slag.

Measuring:

Armor Plate ceramic kits are supplied with the resin and hardener pre-measured in the correct mixing ratio. It is best to empty the entire contents of the resin and hardener containers on a mixing board to ensure the proper mixing ratio is maintained.

If less than a full kit is required for the job, both the resin and hardener must be accurately measured out. **DO NOT ATTEMPT TO "EYEBALL" THE AMOUNT NEEDED**. Adding more or less hardener will only degrade the physical properties.

Mixing:	After the components have been measured on a clean, flat mixing board, mix thoroughly with a trowel until a uniform color is achieved. For mixing the larger kits a mixing paddle and heavy-duty drill may be used. However, the mechanical energy put into the mix by the drill may result in a shorter working time and a reduction of the non-sag characteristics of Armor Plate. Remember that incomplete mixing will result in poor curing, loss of physical properties, and “soft spots”.
Application:	Initially apply a thin, wet coat to the surface to create tack. Build upon the tack coat to the desired thickness. If a screen or expanded metal is used for reinforcement, apply an excess of material at one end of the area and push it through the screen. Push the material so that it “wets” the surface below the screen and moves it in a continuous mass toward the other end of the area.
Curing Procedures:	Cure at least 12 hours at 77°F (25°C) before returning equipment to service. For maximum physical properties for maximum physical properties cure 4 hours at 200°F (93.3°C) after curing 2 hours at 72°F(22°C).

SAFETY PRECAUTIONS

Avoid breathing of vapors. Forced local exhaust is recommended to effectively minimize exposure. NIOSH approved, organic vapor respirators and forced exhaust are recommended in confined areas, or when conditions (such as heated polymers, sanding) may cause high vapor concentrations. **DO NOT WELD ON, BURN OR TORCH ON OR NEAR, ANY EPOXY MATERIAL. HAZARDOUS VAPOR IS RELEASED WHEN AN EPOXY IS BURNED.**

Avoid skin or eye contact. Wash skin with soap and water if contact occurs. If eye contact occurs flush with water for 15 minutes and obtain medical attention. Read and understand all cautions on can labels and safety data sheets before using this material.

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WARRANTY AND DISCLAIMER

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