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TECHNICAL BULLETIN

Armor Plate Aluminum – K-042

Description:

Armor Plate-Aluminum is a two-component, aluminum filled, epoxy system

Ordering Information:

Contact Copps

Product Advantages:

Armor Plate-Aluminum is engineered for ease of use in diverse maintenance applications including repairs of pitted aluminum propeller blades and filling voids in aluminum castings as a non-sag trowelable paste.

Application Guidelines:

MAXIMUM SERVICE TEMP 250°F
WORKING TIME 40 Minutes
FUNCTIONAL CURE 8 Hours
MIX RATIO 3.5/1 by Volume (3.5/1 by weight)

Physical Properties:

		Tests Conducted
TENSILE STRENGTH	4,600 psi	ASTM D 638
COMPRESSIVE STRENGTH	14,000 psi	ASTM D 695
TENSILE SHEAR STRENGTH	2000 psi	ASTM D 1002
HARDNESS, Shore D	86	ASTM D 2240

Surface Preparation:

The surface to be coated must be free of all rust, scale, dirt, dust, grease, oil, release agents or other contaminants. Preheat the surface to 100°F to drive off any moisture.

For smooth 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 weld slag.

Measuring:

Armor Plate products are supplied in pre-measured, ready-to-use kits. Simply empty all the hardener into the resin and mix with a mixing stick until uniform in color (usually 1 to 2 minutes). If less than a full kit is required, measure out resin and hardener onto a mixing board or flat surface. Mix together with a trowel until uniform in color (usually 1 to 2 minutes).

Incomplete mixing will result in poor cure and soft spots.

If the kit becomes colder than 60°F, preheat the cans in hot tap water to a maximum of 90°F. Excessive heat will reduce the working time. The heating of the cans with a torch is **NOT** recommended.

Application:	Apply the mixture immediately with a trowel or putty knife. Cover large holes or cracks with screen, paper or fiberglass cloth and apply Armor Plate over the patch and onto an adjacent sound area.
Curing Procedures:	Cure at least 5 hours at 77°F before returning the equipment to service. Curing procedures may be shortened by applying heat with a heat gun or heat lamps. **DO NOT EXCEED 120°F BEFORE THE PRODUCT HARDENS.**

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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