

ARMOR PLATE-ALUMINUM

ASBESTOS & SOLVENT FREE, EPOXY PATCHING COMPOUNDS

Armor Plate-Aluminum compounds are two-component, aluminum filled, epoxy systems engineered for ease of use in diverse maintenance applications including repairs of pitted aluminum propeller blades and filling voids in aluminum castings.

TYPICAL HANDLING CHARACTERISTICS @ 72 °F AND PHYSICAL PROPERTIES

	K-042 Armor Plate	K-020 Xtra Temp Paste	K-053 Xtra Temp Pourable
Consistency	Non-sag Trowelable Paste	Non-sag Trowelable Paste	Viscous Liquid, 30,000 cP
Working Time*, min.	40	90	60
Curing Time**, h	8	16	16
Mix Ratio			
By Volume	3.5 Resin/1 Hardener	5 Resin/1 Hardener	8.5 Resin/1 Hardener
By Weight	3.7 Resin/1 Hardener	5 Resin/1 Hardener	16 Resin/1 Hardener
Maximum Service Temp., °F	250	450	450
Cured Density, lb/gal. (g/cc)	14.9 (1.78)	14.0 (1.68)	13.9 (1.67)
Volume, in. ³ /lb.	15.5	16.5	16.5
Compressive Strength, psi, (ASTM D-695)	14,000	18,000	18,000
Tensile Strength, psi (ASTM D-638)	4,600	7,000	7,000
Tensile Shear Strength, psi (ASTM D-1002)	2,000	3,500	3,500
Hardness, Shore D (ASTM D-2240)	86	90	90

*The working time of the Armor Plate-Aluminum (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.

**Ultimate hard cure is obtained in 5 to 18 hours depending on the system being used, the air temperature, and the temperature of the surface being coated.

PACKAGING/CONVENIENCE

Armor Plate-Aluminum products are packaged in pre-measured, easy to use kits, sized for most jobs. Larger kits are available on special order.

APPLICATION INSTRUCTIONS

Step 1 - 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.

Step 2 - Mixing

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 following the mixing ratio shown under the Typical Handling Characteristics. 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.

Step 3 - 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.

Step 4 - Curing Procedures

Armor Plate-Aluminum - Cure at least 5 hours at 77 °F before returning the equipment to service.

For service up to 300 °F - Allow at least 8 hours cure @ 72 °F; then preheat for at least 3 hours at peak operating temperature.

For service above 300 °F - Allow 8 hours cure @ 72 °F; then preheat 3-4 hours @ 350 °F or operating temperature. **DO NOT EXCEED 450 °F.**

Curing procedures may be shortened by applying heat with a hot air blower or heat lamps. **DO NOT EXCEED 120 °F BEFORE THE PRODUCT HARDENS.**

SAFETY PRECAUTIONS

Avoid contact with skin as it may cause serious delayed dermatitis. If contact occurs wash immediately with soap and water. The wearing of protective clothing and rubber gloves is recommended.

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 ARMOR PLATE-ALUMINUM OR ANY EPOXY MATERIAL. HAZARDOUS VAPOR IS RELEASED WHEN AN EPOXY IS BURNED.**

Causes eye irritation. Avoid contact with eyes. If eye contact occurs, flush immediately with water. Obtain medical help.

HMIS Classification - Resin: Health 2, Flammability 1, Reactivity 0; Hardener: Health 3, Flammability 1, Reactivity 0

FOR INDUSTRIAL USE ONLY

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