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Technical Bulletin

Armor Plate - Steel -Pourable - K-035

Description: Armor Plate – Steel Pourable is a two-component, steel filled epoxy system. Armor Plate – Steel

Pourable repairs worn or corroded parts and is used in shafts, or castings, where the need for a pourable, self-leveling compound is desired. In addition, it can be used in tooling and die making

applications.

Ordering Information:

K-035-2 (2LB Unit) K-035-15 (15LB Unit)

Product

Armor Plate - Steel may be drilled, tapped, filed or machined.

Advantages:

Application Pouring Viscosity 25,000 cps
Guideline: Maximum Service Temp 225°F

Working Time 20 minutes Functional Cure 8-12 Hours

Mix Ratio 5/1 by Volume (15.46/1 by weight)

Coverage: Approximate coverage per pound is 20 in. ² at 0.5 in. thickness.

The working time of Armor Plate-Steel Pourable (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. Higher temperatures reduce working time and curing time. Lower temperatures

increase working time and curing time.

Physical Tensile Strength 6,400 psi ASTM D 638

Flexural Strength 11,300 psi ASTM D 790
Compressive Strength 15,100 psi ASTM D 695
Tensile Shear Strength 2,300 psi ASTM D 1002
Hardness, Shore D 91 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. The more thorough the degree of surface preparation the better the applied epoxy will perform. If at all possible, it is recommended that the surface be grit blasted to a near white metal

finish prior to pouring the material.

Measuring: Armor Plate - Steel Pourable kits are supplied with the resin and hardener pre-measured in the correct

mixing ratio. It is best to use a full kit at one time to insure 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. Use a scale to weigh out each component or use measuring cups to measure by volume. Adding more or less hardener will only degrade the

physical properties.

If the kit is colder than 60 °F, preheat both the resin and hardener by placing the cans in a hot water bath. The material temperature should not exceed 90 °F as higher heat will reduce the working time of the mix. Heating of the cans with a torch or other direct flame is highly dangerous and should **NEVER BE DONE.**

Mixing:

Add hardener content to the resin container. Mix by hand using a large spatula or with a small, slow speed drill and mixing paddle until hardener is thoroughly mixed in and a uniform color is achieved. Generally this takes 2-3 minutes depending on the method used. Be sure to scrape sides and bottom of container as incomplete mixing will result in poor curing, loss of physical properties, and "soft spots".

Application:

Brush a thin coat of Armor Plate – Steel Pourable onto the substrate prior to pouring.

Curing

Cure at least 8-12 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.

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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TB#4035 (10/21/16)