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ARMOR PLATE - BRUSHABLE CERAMIC

K-015

VOC FREE, ABRASION RESISTANT EPOXY COATING

GENERAL PRODUCT INFORMATION

Brushable Ceramic (K-015) is a smooth, two-component, ceramic filled epoxy system that provides a glossy, low friction coating designed to protect against abrasion, turbulence and cavitations. Typical applications include repairing heat exchangers and condensers, lining chutes and tanks, resurfacing rudders and pintel housings and repairing cooling pump impellers, butterfly valves and cavitated pumps.

HANDLING PROPERTIES @ 77 °F

COLOR	White	
DENSITY, lb/gal	13.0	ASTM D 792
MIX RATIO, pbv (pbw)	2.8/1 (4.7/1)	
MIXED VISCOSITY, cP or mPa.s	15,000	ASTM D 2196
WORKING TIME, min	30	
GEL TIME, min	55	ASTM D 2471
CURE TIME**, h	6	

TYPICAL PROPERTIES

COMPRESSIVE STRENGTH, psi (MPa)	11,000 (76)	ASTM D 695
TENSILE STRENGTH, psi (MPa)	4,200 (36)	ASTM D 638
MAXIMUM SERVICE TEMPERATURE, °F (°C)	200 (93)	
HARDNESS, Shore D	87	ASTM D 2240
KIT – VOLUME - COVERAGE (@ 10 mil):	2 lb - 36 $in.^3$ - 25 ft^2 15 lb - 267 $in.^3$ - 185 ft^2	

*The working time varies according to the temperature of the air, the epoxy and the surface to which it is applied.

**The cure time varies with the temperature of the air and the surface being bonded.

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. 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 applying the Brushable Ceramic epoxy.

Step 2 – Measuring

Brushable Ceramic 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.** Adding more or less hardener will only degrade the physical properties.

If the kit is colder than 60 °F (15.6 °C), preheat both the resin and hardener by placing the cans in a hot water bath. The water temperature should not exceed 90 °F (32.2 °C) as high heat will reduce the working time of the mix. Heating of the cans with a torch is **NOT** recommended.

Step 3 – Mixing

Add hardener content to the resin. Mix by hand using a large spatula or with a small, slow speed drill and mixing paddle until a uniform white color is reached. Generally this takes 2-3 minutes depending on the method used. Incomplete mixing will result in poor curing, loss of physical properties, and "soft spots".

Step 4 – Application

Fully mixed material may be applied with a brush or roller depending on the application.

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.**