



HYPOXY CERAMIC HARD COAT

PRODUCT: H-300 1LB/.454KG RED H-303 3LB/1.36KG RED
 H-350 1LB/.454KG BLUE H-353 3LB/1.36KG BLUE
 H-360 1LB/.454KG YELLOW H-363 3LB/1.36KG YELLOW

DESCRIPTION: A two-component, high-performance, brushable ceramic coating used for protecting, sealing and repairing surfaces which are subject to corrosion, wear and erosion. When mixed, it is a viscous liquid. Ceramic Hard Coat then cures to a hard, ceramic-like material with an Extremely smooth surface finish.

APPLICATIONS:

OUTSTANDING EROSION / CORROSION RESISTANCE
REPAIR DAMAGED COMPONENTS – PROTECTS NEW EQUIPMENTS

HYPOXY CERAMIC HARD COAT is High Performance Polymer Composite for resurfacing and protecting all types of fluid flow components from aggressive erosion and corrosion damage. It is designed for coating new and worn surfaces exposed to wet or dry particle abrasion, entrainment, frictional wear, erosion, cavitation and corrosion. Formulated with abrasion resistant ceramic fibers in various pre-calculated shapes and sizes, the unique chemistry produces a coating with ultra high compressive strengths to provide excellent adhesive strength and very high temperature resistance. It Seals and protects tube sheets, water boxes, impellers, pump housings, tanks, cyclones, gate valves and other metal surfaces against corrosion, abrasion and harsh chemicals. It provides a very hard, smooth and glossy surface.

It is most suitable to provide high erosion / abrasion resistance coatings on Elbows, Pipes, Pumps, Chutes, Deflector Plates, Cyclones Separators, Vibratory Feeders etc.

It is suitable for repair & protecting on valves, slurry lines, feed screws, flue gas scrubbers, demineralizing beds, vacuum pumps, salt spreaders, exhaust fans, fertilizer dryers, impellers and chemical tanks.



PHYSICAL PROPERTIES:

Color -: Red or Blue or Yellow
 Pot Life 1 lb. @ 24°C (75°F) -: 25 minutes
 Viscosity -: Heavy Liquid.
 Mixed Viscosity -: 32,000 cps
 Cure Shrinkage -: 0.0007 in/in
 Temperature Resistance -: 250°F (121°C)
 Hardness (Shore, ASTM D 1706) -: 84D
 Coverage -: 1 Lb covers 6.5 sq.ft @ 15 mil thick
 Coefficient of Thermal Expansion -: 75 X 10⁻⁶ cm/cm/°C
 Compression Strength (ASTM D 695) -: 15,400 psi
 Tensile Strength (ASTM D 638) -: 4,800 psi
 Dielectric Strength -: 16 KV / mm

CHEMICAL RESISTANCE:

Hydrochloric Acid 15% -: Very Good
 Sea Water -: Very Good
 Sulfuric Acid 20% -: Very Good
 Gasoline -: Very Good
 Water -: Very Good
 Ammonia -: Very Good
 Caustic Soda -: Very Good
 Xylene -: Very Good
 Benzene -: Poor
 Toluene -: Good
 Methylene Chloride -: Poor
 MEK -: Good
 Ethanol 50% -: Good



SURFACE PREPRATION :

Surfaces must be clean, dry, and preferably roughened for maximum adhesion. Proper surface preparation is critical to the long term performance of this product. The exact requirements for surface preparation vary with the severity of the application, expected service life, and the initial substrate condition.

Optimum preparation will provide a surface thoroughly cleaned of all contaminants and roughened to an angular profile between 75-125 microns (3 to 5 mils). This is normally achieved by initial cleaning, followed by abrasive blasting to a cleanliness of white metal (SA3 / SSPC-SP5) or Near White Metal (SA 2 ½ SSPC SP 10) followed by rinsing with an organic solvent which evaporates leaving no film residue. Grinding or machining to a rough surface profile followed by rinsing with solvent is acceptable although a subsequent lowering in adhesion may result.

MIXING & APPLICATION:

1. Mix the hardener thoroughly with a clean, one inch putty knife to disperse any pigment that may have settled. Scrape all the hardener into the resin container and mix thoroughly making sure all of the resin comes in contact with all of the hardener. Mix until the color is uniform with no light or dark streaks. Then mix for an additional minute. Total mixing time should be 4 minutes.
2. Mix ratio for lesser amounts: 5.7:1 by weight or 3.5:1 by volume.
3. Spread the material over the entire area as quickly as possible using a short stiff bristle brush, putty knife or plastic applicator blade.
4. Spread to a minimum thickness of 15 mils(0.4mm). Use a wet film thickness gauge to check. While spreading, take care to smooth out any heavy sags or drips.
5. Carefully inspect the first coat for pinholes, voids and holidays and repair before proceeding.
6. Mix and apply the second coat following the above instructions after the first coat has stiffened but is still tacky. At different temperatures, over coating time will be:

65°F (18°C) 2 – 4 hours

75°F (24°C) 1.5 – 3 hours

85°F (29°C) 1 – 2 hours

If these times are exceeded by less than 8 hours, the first coat should be lightly sanded then wiped with solvent and clean lint-free rags. If more than 8 hours, brush blast the coat at 60 to 80 psi (4-6 kg/sq.cm).

7. The second coat will be cured sufficiently for handling, grinding and trimming after:
18 hours at 65°F (18°C)
12 hours at 75°F (24°C)
10 hours at 85°F (29°C)

SAFETY :

Before using any product, review the appropriate Material Safety Data Sheet (MSDS). Follow standard confined space entry and work procedures, if appropriate.

NON-WARRANTY:

We can accept no responsibility or liability for lack of results because the storage, handling, and application of the compound is beyond our control.

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