



# TECHNICAL DATA SHEET

## 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

**DESCRIPTION:** A two-component, high-performance, brushable ceramic coating used for protecting, sealing and repairing surfaces which are subject to corrosion, wear and erosion.

**APPLICATIONS:** 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.

<b>PHYSICAL PROPERTIES:</b>	
Color	Red or Blue
Pot Life @ 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	1lb covers 6.5 sq. ft. @ 15 mil thick
Coefficient of Thermal Expansion	$75 \times 10^{-6}$ cm/cm/°C
Compression Strength (ASTM D 695)	15,400 psi
Tensile Strength (ASTM D 638)	4,800 psi

<b>CHEMICAL RESISTANCE:</b>	
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 30%	Very Good
Benzene	Poor
Xylene	Very Good
Toluene	Good
Ethanol 50%	Good
MEK	Good
Methylene Chloride	Poor



# TECHNICAL DATA SHEET

**DIRECTIONS:** \*\*\*Do not apply unless the surface temperature is at least 60°F (18°C) or if the relative humidity is greater than 90%.

**SURFACE PREPARATION:**

1. Clean surface area thoroughly by removing all oil, grease, tar and dirt with a solvent such as HY-POXY Cleaner.
2. Grind down any sharp edges and imperfections.
3. Grit blast to a white metal finish. Clean the surface area again to remove any accumulated dust, oil, grease, etc. \*\*\*Metals that have been exposed to sea water or other salt solutions should be left alone for 12 hours after first grit blasting to allow any salt in the metal to sweat to the surface. Then repeat blasting and clean-up as outlined above.
4. Applicators should wear gloves and area should be repaired as soon as possible to prevent further contamination.

**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. Spread the material over the entire area as quickly as possible using a short stiff bristle brush, putty knife or plastic applicator blade.
3. 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.
4. Carefully inspect the first coat for pinholes, voids and holidays and repair before proceeding.
5. 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).

6. 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)

**NON-WARRANTY:** We do not accept any responsibility or liability for lack of results because the storage, handling, and application of the compound are beyond our control.

CERAMIC HARD COAT TDS

DATE: JANUARY 5, 2009 HY-POXY SYSTEMS, INC. P.O. BOX 6988 HILTON HEAD ISLAND, SC 29938 USA TEL. 843 363-5681  
FAX: 843 363-5682 WWW. HYPOXY.COM