HY-POXY SYSTEMS, INC.

TECHNICAL DATA SHEET

STEELBOND® STEEL PUTTY

PRODUCT: H-150 6.5 oz (184 grams) Steel Repair Kit
H-1 2.25 oz (64 grams) Steel Repair Kit

DESCRIPTION: A two-component epoxy formula highly concentrated with carefully selected steel particles, modified curing agents and special high quality additives to provide maximum strength, durability, and ease of application. STEELBOND will adhere to vertical surfaces and can be machined with standard metalworking tools and equipment.

APPLICATIONS: Universally used for repairing pipes, tanks, valves, pumps, engine blocks, water jackets, radiators, etc. STEELBOND is a non-shrinking, permanent metallic filler that is widely used for blow holes in castings, building up metal surfaces and for the repair of drill jigs and placement fixtures.

PHYSICAL PROPERTIES:	
Color	Dark Grey
Pot Life 1 lb. @ 24ºC (75°F)	60 minutes
Mixed Viscosity	350,000 cps
Cure Shrinkage	0.0007 in/in
Temperature Resistance	250°F (121ºC)
Hardness (Shore, ASTM D 1706)	85D
Cured Density	11.9 cu. in. per lb.
Coefficient of Thermal Expansion	50 X 10^{-6} cm/cm/ºC
Compression Strength (ASTM D 695)	7,800 psi (53 M Pa)
Tensile Strength (ASTM D 638)	4,000 psi (27 M Pa)
Flexual Strength (ASTM D 790)	6,300 psi (43 M Pa)
Compression Modulus (ASTM D 695)	2.70 X 10^5psi (1.8 X 10^3 M Pa)
Thermal Conductivity (ASTM C 177)	1.37 X 10^{-3} cal-cm/sec.cm^2 ºC
Dielectric Strength (ASTM D 149)	30 volts/mil
Adhesive Tensile Shear (ASTM D1002)	2835 psi

CHEMICAL RESISTANCE:	
Hydrochloric Acid 10%	Very Good
Hydrochloric Acid 50%	Good
Sulfuric Acid 10%	Very Good
Sulfuric Acid 50%	Good
Water	Very Good
Ammonia	Very Good
Sodium Hydroxide 10%	Very Good
Gasoline, Oil, Kerosene	Very Good
Mineral Spirits	Very Good
Toluene	Good
Methanol	Fair
MEK	Fair
Propylene Glycol	Very Good

DIRECTIONS: Surface area in need of repair must be clean, dry and preferably roughened for maximum adhesion.

Combine equal volumes of hardener and resin. Volume ratio is 1 part hardener to 1 part resin.

Mix thoroughly for 6 minutes scraping the sides and bottom of the container making certain that all of the hardener comes in contact with all of the resin.

Apply the mixed compound with putty knife, spatula, or similar tool. The tool may be moistened with water to provide a smooth finish to the HY-POXY®. Since HY-POXY® will not adhere to polyethylene, a piece of that plastic can be placed on the uncured HY-POXY® and removed after the material cures to leave a very smooth finish.

CURING TIME: At 75°F (24°C) a ½" (12.5mm) layer of HY-POXY® STEELBOND® putty will be hard in approximately 4 hours. FULL cure times are as follows:

TEMPERATURE	WORKING TIME	FULL CURE TIME
60°F (16°C)	90 Minutes	32 Hours
75°F (24°C)	45 Minutes	16 Hours
90°F (32°C)	25 Minutes	8 Hours

HY-POXY® STEELBOND® will not cure properly below 60°F (16°C).

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

DATE: MARCH 1, 2009 HY-POXY SYSTEMS, INC. P.O. BOX 6988 HILTON HEAD, SC 29938 USA TEL. 843 363-5681
FAX: 843 363-5682 WWW.HYPOXY.COM