HY-POXY SYSTEMS, INC.

TECHNICAL DATA SHEET

STEELBOND® STEEL PUTTY

PRODUCT: H-100 1 lb. Repair Kit Stock Number 00100

DESCRIPTION: A two-component epoxy formulation highly filled with carefully selected steel particles, modified curing agents, and special high quality additives to provide maximum strength, durability, and ease of application. Will adhere to vertical surfaces and is easily machineable with standard metalworking tools and equipment.

APPLICATIONS: Universally used for repairing pipes, tanks, valves, pumps, engine blocks, water jackets, radiators, etc. A permanent, non-shrinking metallic filler for blow holes in castings. Ideal for building up metal surfaces. Widely used for fast, inexpensive, but accurate drill jigs and placement fixtures.

PHYSICAL PROPERTIES:	
Color	Dark Grey
Pot Life 1 lb. @ 24ºC (75°F)	45 minutes
Mixed Viscosity	350,000 cps
Cure Shrinkage	0.0005 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	65×10^{-6} cm/cm/ºC
Compression Strength (ASTM D 695)	8,100 psi (56 M Pa)
Tensile Strength (ASTM D 638)	4,100 psi (28 M Pa)
Flexual Strength (ASTM D 790)	6,300 psi (43 M Pa)
Compression Modulus (ASTM D 695)	2.70×10^{5}psi (1.8×10^{3} M Pa)
Thermal Conductivity (ASTM C 177)	1.37×10^{-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: Surfaces must be clean, dry, and preferably roughened for maximum adhesion.

Add all of the hardener to all of the resin in the resin container. For smaller portions, dole out 1 part hardener to 3 parts resin by volume (1 to 9 parts by weight).

Mix thoroughly, making certain that all of the hardener comes in contact with all of the resin. While mixing be sure to scrape the sides and bottom of the container.

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.

COVERAGE: 1lb. (454g) STEELBOND® kit covers approximately 47sq. inches (303sq. centimeters) at ¼"(6.35mm) thickness.

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

DATE: MARCH 1, 2008 HY-POXY SYSTEMS, INC. P.O. BOX 6988 HILTON HEAD, SC 29938 USA TEL. 843 363-5681
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