



## Magic Bond Stick

**Description:** A 2-part epoxy putty stick which repairs leaks, holes, cracks in metal, fiberglass, concrete, and ceramics.

**Intended Use:** Repairs cracks and breaks in tanks and drums. Plumbing and pipe repair. Repairing machinery and equipment.

**Product features:**

**Limitations:**

**Typical Physical Properties:**

*Technical data should be considered representative or typical only and should not be used for specification purposes.*

**Cured 7 days @ 75° F**

<b>Adhesive Tensile Shear</b>	<b>920 PSI</b>
<b>Coefficient of Thermal Expansion</b>	<b>21[(in./in. x °F)] x 10(-6)</b>
<b>Color</b>	<b>starts green cures grey</b>
<b>Compressive Strength</b>	<b>12,000 psi</b>
<b>Coverage/lb</b>	<b>61 sq.in. @ 1/4"</b>
<b>Cured Hardness</b>	<b>76 Shore D</b>
<b>Cured Shrinkage</b>	<b>0.0030 in./in.</b>
<b>Dielectric Constant</b>	<b>28.1</b>
<b>Dielectric Strength</b>	<b>300 volts/mils</b>
<b>Flexural Strength</b>	<b>4,280 psi</b>
<b>Functional Cure</b>	<b>1 hr</b>
<b>Mix Ratio by Volume</b>	<b>1:1</b>
<b>Mixed Viscosity</b>	<b>Putty</b>
<b>Modulus of Elasticity</b>	<b>7.0 psi x 10(5)</b>
<b>Pot Life @ 75F</b>	<b>10 min</b>
<b>Solids by Volume</b>	<b>100</b>
<b>Specific Gravity</b>	<b>1.90</b>
<b>Specific Volume</b>	<b>15.3 in.(3) lbs.</b>
<b>Temperature Resistance</b>	<b>Dry: 250°; Wet: 125°F</b>
<b>Thermal Conductivity</b>	<b>1.24 [cal/(sec*cm*°C)]*10^-3</b>

**TESTS CONDUCTED**

Dielectric Constant ASTM D 150  
Thermal Conductivity ASTM C 177

**Surface Preparation:**

1. Thoroughly clean the surface with Devcon® Cleaner Blend 300 to remove all oil, grease and dirt.

2. Grit blast surface area with 8-40 mesh grit, or grind with a coarse wheel or abrasive disc pad, to create increased surface area for better adhesion (Caution: An abrasive disc pad can only be used provided white metal is revealed). Desired profile is 3-5mil, including defined edges (do not "feather-edge" epoxy).

Note: For metals exposed to sea water or other salt solution, grit-blast and high-pressure-water-blast the area, then leave overnight to allow any salts in the metal to "sweat" to the surface. Repeat blasting to "sweat out" all soluble salts. Perform chloride contamination test to determine soluble salt content (should be no more than 40ppm).

3. Clean surface again with Devcon® Cleaner Blend 300 to remove all traces of oil, grease, dust or other foreign substances from the grit blasting.

4. Repair surface as soon as possible to eliminate any changes or surface contaminants.

**WORKING CONDITIONS:** Ideal application temperature is 55°F to 90°F. In cold working conditions, directly heat repair area to 100-110°F prior to applying epoxy and maintain at this temperature during product cure to dry off any moisture, contamination or solvents, as well as to achieve maximum performance properties.

**Mixing Instructions:**

---- It is strongly recommended that full units be mixed, as ratios are pre-measured. ----

1. Add hardener to resin.
2. Mix thoroughly with screwdriver or similar tool (continuously scrape material away from sides and bottom of container) until a uniform, streak-free consistency is obtained.

INTERMEDIATE SIZES (1,2,3 lb. units): Place resin and hardener on a flat, disposable surface such as cardboard, plywood or plastic sheet. Use a trowel or wide-blade tool to mix the material as in Step 2 above.

LARGE SIZES: (25 lb., 30 lb., 50 lb. buckets): Use a T-shaped mixing paddle or a propeller-type Jiffy Mixer Model ES on an electric drill. Thoroughly fold putty by vigorously moving paddle/propeller up and down until a homogenous mix of resin and hardener is attained.

**Application Instructions:**

- For best results, clean and roughen bond area prior to application.
- Twist or cut off required amount.
- To mix, knead with fingers to a uniform color.
- Apply to surface to be repaired (within 2 minutes of mixing). Force into any cracks or holes to be filled and strike off excess material.
- When applying to a damp, wet, or slowly leading area, work the material forcefully into the area and apply pressure until adhesion begins to take affect.
- Remove excess material before hardening begins.
- For a smooth appearance of the cured compound, hand-rub with water or a damp cloth prior to hardening.

**Storage:**

Store in a cool, dry place.

**Compliances:**

None

**Chemical Resistance:**

*Chemical resistance is calculated with a 7 day, room temp. cure (30 days immersion) @ 75 °F)*

Ammonia	Very good
Chlorinated Solvent	Very good
Hydrochloric 10%	Fair
Kerosene	Very good
Methanol	Poor
Sodium Hydroxide 10%	Very good
Sulfuric 10%	Fair
Toluene	Fair

**Precautions:**

Please refer to the appropriate material safety data sheet (MSDS) prior to using this product.

**For technical assistance, please call 1-800-933-8266**

**FOR INDUSTRIAL USE ONLY**

**Warranty:**

Devcon will replace any material found to be defective. Because the storage, handling and application of this material is beyond our control, we can accept no liability for the results obtained.

**Disclaimer:**

All information on this data sheet is based on laboratory testing and is not intended for design purposes. ITW Devcon makes no representations or warranties of any kind concerning this data.

**Order Information:**

**11600 4 oz. stick**