



## High Performance Backing Compound

|                          |   |
|--------------------------|---|
| <b>Description:</b>      | High-strength liquid epoxy with the necessary resiliency and strength to withstand forces generated by crushers and mills.  |
| <b>Intended Use:</b>     | Rod, ball, pebble, and autogenous mills; cone and gyratory crushers   |
| <b>Product features:</b> | <b>100% solids - no solvents</b><br><b>High compression and impact strength</b><br><b>Negligible shrink</b><br><b>Easy to pour; easy to use</b><br><b>Low exothermic reaction</b> |
| <b>Limitations:</b>      | None  |

**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>1,100</b>                            |
| <b>Coefficient of Thermal Expansion</b> | <b>22 [(in.) / (in. x °F)] x 10(-6)</b> |
| <b>Color</b>                            | <b>Red</b>                              |
| <b>Compressive Strength</b>             | <b>18,850 psi</b>                       |
| <b>Coverage/lb</b>                      | <b>349 cu.in./1.5 gal.</b>              |
| <b>Cured Hardness</b>                   | <b>85D</b>                              |
| <b>Cured Shrinkage</b>                  | <b>0.0006 in./in.</b>                   |
| <b>Flexural Strength</b>                | <b>11,500 psi</b>                       |
| <b>Functional Cure</b>                  | <b>8 hrs.</b>                           |
| <b>Impact strength (Charpy)</b>         | <b>1.3 ft.lb./in.</b>                   |
| <b>Mix Ratio by Volume</b>              | <b>9.95:1</b>                           |
| <b>Mix Ratio by Weight</b>              | <b>100:5.94</b>                         |
| <b>Mixed Viscosity</b>                  | <b>10,320 cps</b>                       |
| <b>Modulus of Elasticity</b>            | <b>9.5 psi x 10(5)</b>                  |
| <b>Pot Life @ 75F</b>                   | <b>56 min.</b>                          |
| <b>Solids by Volume</b>                 | <b>100</b>                              |
| <b>Specific Gravity</b>                 | <b>1.65 g/cm(3)</b>                     |
| <b>Specific Volume</b>                  | <b>17.2 in.(3)/lb.</b>                  |
| <b>Temperature Resistance</b>           | <b>250°F</b>                            |
| <b>Tensile Strength</b>                 | <b>7,687 psi</b>                        |

**TESTS CONDUCTED**

Compressive Strength ASTM D 695  
Cured Hardness Shore D ASTM D 2240  
Adhesive Tensile Shear ASTM D 1002  
Cure Shrinkage ASTM D 2566  
Flexural Strength ASTM D 790  
Tensile Strength (Epoxy) ASTM D 638

**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 mesh 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 50°F to 90°F. In cold working conditions, heat repair area to 100-110°F immediately prior to applying epoxy to dry off any moisture, contamination or solvents, as well as to assist epoxy in achieving maximum adhesion 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.

LARGE SIZES (2 lb., 25 lb.): Use a propeller-type Jiffy Mixer Model ES on an electric drill. Mix until color is uniform and consistent.

Note: Keep propeller below liquid line, as additional air can be added to mixture, resulting in air bubbles on the surface of the finished product.

**Application  
Instructions:**

When pouring High Performance Backing Compound, observe the following guidelines:

- Thoroughly mix High Performance Backing Compound, then immediately pour into designated area, allowing compound to fill the cavity and push air away from the pour.
- Use a dam (tin, cardboard, clay, or Devcon Plastic Welder) to seal areas and direct flow of the compound to the specified area.
- Any unmixed resin (different color) clinging to the sides and/or bottom of the pail should NOT BE poured into the crusher, as it may not harden.

**ADDITIONAL INFORMATION:**

- High Performance Backing Compound may be mixed and poured individually as needed.
- High Performance Backing Compound adheres to itself.
- Applying epoxy at temperatures below 70°F lengthens functional cure and pot life times. Conversely, applying above 70°F shortens functional cure and pot life.
- High Performance Backing Compound fully cures in 16 hours, at which time it can be machined, drilled or painted.

**Storage:**

Store at room temperature, 70 °F.

**Compliances:**

None

**Chemical  
Resistance:**

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

|                         |           |
|-------------------------|-----------|
| Ammonia                 | Excellent |
| Cutting Oil             | Excellent |
| Gasoline (Unleaded)     | Fair      |
| Hydrochloric 10%        | Very good |
| Hydrochloric 36%        | Fair      |
| Mineral Spirits         | Excellent |
| Potassium Hydroxide 20% | Excellent |
| Potassium Hydroxide 40% | Excellent |

|                       |           |
|-----------------------|-----------|
| Sodium Chloride Brine | Excellent |
| Xylene                | Excellent |

**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:**

**11170    20 lb.**