



High Performance Backing Compound

Description: High-strength liquid epoxy with the necessary resiliency and strength to withstand forces generated by crushers and mills. It serves as a backing and reinforcing layer between machine parts and as a damper when subjected to impact and shock loads.

Intended Use: Rod, ball, pebble, and autogenous mills; cone and gyratory crushers

Product features:
100% solids - no solvents
High compression and impact strength
Negligible shrink
Easy to pour; easy to use
Low exothermic reaction

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

Adhesive Tensile Shear	1,179 psi
Coefficient of Thermal Expansion	22 [(in.) / (in.) x °F] x 10(-6)
Color	Red
Compressive Strength	16,059 psi
Coverage/lb	349 cu.in./20 lb kit
Cured Hardness	85D
Cured Shrinkage	0.0006 in./in.
Flex Modulus	1,442,000 psi
Flexural Strength	10,277 psi
Functional Cure	8 hrs.
Impact strength (Charpy)	1.3 ft.lb./in.
Mix Ratio by Volume	9.95:1
Mix Ratio by Weight	100:5.94
Mixed Viscosity	10,320 cps
Modulus of Elasticity	9.5 psi x 10(5)
Pot Life @ 75F	30 min.
Side Impact Strength	41in/lbs.
Solids by Volume	100
Specific Gravity	1.65 g/cm(3)
Specific Volume	17.2 in.(3)/lb.
Temperature Resistance	250°F
Tensile Strength	5,300 psi

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 (Epoxies) 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 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.

LARGE SIZES (3 lb, 4 lb, 25 lb): Use a propeller-type Jiffy Mixer on an electric drill. Use model HS-1 for 3 lb and 4 lb kits. Use model ES for 25 lb kit. 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 (Concave Sealer #81091) 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 safety data sheet (SDS) prior to using this product.

For technical assistance, please call 1-855-489-7262

FOR INDUSTRIAL USE ONLY

Warranty:

ITW Performance Polymers 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 Performance Polymers makes no representations or warranties of any kind concerning this data.

Order Information:

81095 20 lb.
81096 50 lb.