



# **MineForm<sup>®</sup> BACKER GROUT**

## High Strength Epoxy Grouting System

### **PRODUCT DESCRIPTION**

**Five Star<sup>®</sup> MineForm<sup>®</sup> Backer Grout** is a two-component, 100% solids, epoxy grouting system specifically engineered for use in the demanding mining industry to secure wear plates under cone crushers, aggregate crushers, grinding mills and related heavy machinery. Five Star<sup>®</sup> MineForm<sup>®</sup> Backer Grout is formulated to provide high compressive and tensile strengths while bearing extreme repetitive dynamic loads.

### **ADVANTAGES**

- High impact resistance
- Excellent wear resistance
- High tensile strength
- High compressive strength
- Reduces down time; saves money
- Easy to mix and install—no special equipment needed

### **USES**

- Crushing and grinding machinery
- Backing of wear plates
- High vibratory applications
- Ideal for cone crushers, gyratory crushers, rotating mills, pulverizers, and other heavy equipment
- High bond to wear metals

### **PACKAGING AND YIELD**

Five Star<sup>®</sup> MineForm<sup>®</sup> Backer Grout is a two-component epoxy system consisting of partially filled containers of resin and hardener and is available in two sizes: a large kit yielding approximately 0.49 ft<sup>3</sup> (13.9L), and a small kit yielding approximately .20 ft<sup>3</sup> (5.7L) of hardened material.

### **SHELF LIFE**

One year in original unopened packaging when stored in dry conditions; high relative humidity will reduce shelf life.

<b>TYPICAL PROPERTIES AT 70°F (21°C)</b>	
<b>Compressive Strength, ASTM C 579 B</b>	
Post Cure @ 140°F (60°C)	19,000 psi (131.0 MPa)
<b>Compressive Strength, ASTM D 695</b>	
1 Day	11,000 psi (75.84 MPa)
7 Days	14,000 psi (96.52 MPa)
Post Cure @ 140°F (60°C)	18,000 psi (124.10 MPa)
<b>Compressive Secant Modulus</b>	3.5 x 10 <sup>5</sup> psi (0.24 x 10 <sup>4</sup> MPa)
<b>Coefficient of Linear Thermal Expansion, ASTM C 531</b>	
32°F to 140°F (0°C to 60°C)	20.8 x 10 <sup>-6</sup> in/in/°F (37.4 x 10 <sup>-6</sup> mm/mm/°C)
<b>Shore D Hardness - Post Cure, ASTM D 2240</b>	87
<b>Flexural Strength, ASTM C 580</b>	7,000 psi (48.3 MPa)
<b>Tensile Strength, ASTM D 638</b>	6,800 psi (46.9 MPa)
<b>Pot Life 70°F (21°C)</b>	30 Minutes
<b>Fire Resistance, ASTM D 635</b>	Self Extinguishing
<b>Maximum Service Temperature</b>	230°F (110°C)

*The data shown above reflects typical results based on laboratory testing under controlled conditions. Reasonable variations from the data shown may result. Test methods are modified where applicable.*

## **PLACEMENT GUIDELINES**

1. **SURFACE PREPARATION:** All surfaces to be in contact with Five Star® MineForm® Backer Grout shall be free of oil, grease, and other contaminants. Steel surfaces with sharp edges or frets should be ground smooth prior to grout placement. Seal all open areas with putty or similar material to contain grout and prevent unwanted leaks.
2. **MIXING:** For optimum performance, resin and hardener should be conditioned to between 70°F (21°C) and 80°F (27°C) for at least 12 hours before use. Premix Component A (resin) for approximately one minute. Pour Component B (hardener) into the Component A (resin) container and mix thoroughly for three to four minutes with a slow speed drill and paddle mixer at 200 rpm. Always keep the mixing blade completely submerged in the material to minimize air entrapment. Be certain the mixing blade removes material completely around the sides and bottom of the resin can. This will ensure a uniform mix of the resin and hardener.
3. **APPLICATION METHOD:** Place grout immediately after mixing. Pour from a single location and fill cavity. Use dam to direct the flow as necessary. Large volume pours may require placement in lifts. Allow previous lift to cool to 90°F before applying subsequent lifts. Placement should be continuous to prevent cold joints. Check for leaks during installation.
4. **CLEAN UP:** All tools and equipment may be cleaned with a solvent such as MEK before material hardens. Sand may be used as an abrasive to aid in clean up.

**NOTE: PRIOR TO APPLICATION, READ ALL PRODUCT PACKAGING THOROUGHLY.** For more detailed placement procedures, refer to Five Star Products' Design-A-Spec™ installation guidelines or call the Five Star Products' Engineering and Technical Service Center at 1-800-243-2206.

## **CONSIDERATIONS**

- Place mixed grout immediately after mixing.
- Higher temperatures increase strength development but reduce working time.
- Colder temperatures decrease strength development and reduce flowability.
- Large volume pours may require placement in lifts.

## **CAUTION**

Irritant, toxic, strong sensitizer. Contains epoxy resin and amine. This product may cause skin irritation. Do not inhale vapors. Provide adequate ventilation. Protect against contact with skin and eyes. Wear rubber gloves, long sleeve shirt, goggles with side shields. In case of contact with eyes, flush repeatedly with water and contact a physician.

For worldwide availability, additional product information and technical support, contact your local Five Star distributor, local sales representative, or call Five Star Products' Engineering and Technical Service Center at 1-800-243-2206 (U.S.), or +1 203-336-7900 (outside the U.S.).

<b>SKU/PRODUCT CODE</b>	<b>DESCRIPTION</b>	<b>WEIGHT</b>
91175	Five Star® MineForm® Backer Grout	Large Kit: 56 Lbs. (25.4 Kg)
91125	Five Star® MineForm® Backer Grout	Small Kit: 23 Lbs. (10.43 Kg)

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Specifications Subject to Change.

For most current version of datasheet, go to [FiveStarProducts.com](http://FiveStarProducts.com)

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