

## product data

### SELECTION & SPECIFICATION DATA

<b>TYPE &amp; DESCRIPTION</b>	670 Pourable Grout is a high strength, chemical resistant Vinylester pourable grout. 670 is designed for deep pour projects, with a minimum film thickness of 1.5 inches.
<b>ADVANTAGES</b>	Cures quickly to form an exceptionally tough, impact and abrasion resistant system. Excellent adhesion to concrete, steel, and wood. Minimum down time. Sanitary, non-shrinking polymer. Easy to clean - USDA acceptable.
<b>CHEMICAL RESISTANCE</b>	Not affected by water, oil, brine, most acids, and alkalines. For specific recommendations, please refer to Greenstone's Chemical Resistance Guide, or contact Technical Service.
<b>USES</b>	Used to build or rebuild trenches, tank and pump pads, column supports, curbs, equipment pads, and tank walls and floors.
<b>GOVERNMENT AGENCY</b>	Meets the requirements of the U.S. Department of Agriculture (USDA) for use as an incidental food contact flooring system.

**FOR INDUSTRIAL USE ONLY!**

<b>PHYSICAL DATA</b>	<p>Compressive Strength, ASTM D695 - 14,000 psi (resin) Modulus of Elasticity, ASTM D695 - <math>1.062 \times 10^6</math> Tensile Strength, ASTM D638 - 11,600 psi (resin) Flexural Strength, ASTM D790 - 14,800 psi (resin) Thermal Coefficient of Linear Expansion, ASTM D696 - <math>1.2 \times 10^{-5}</math> in/in/°F. Bond Strength, ASTM C-321 - Greater than 350 psi (100% substrate failure). Impact Strength - 160 in/lbs. Indentation - MIL-D-3134F - No Indentation Shelf Life - 90 days minimum when storage temperature is less than 70°F. Working Time - approximately 20 minutes at 75°F. Potlife - approximately 15 minutes at 75°F. Cure Time - Greenstone 670 Pourable Grout will harden within a few hours at 75°F. The warmer the temperature, the faster it cures. Allow a minimum cure of 24 hours for light traffic, and 96 hours for heavy traffic loads and chemical spillage. Flammability - Does not support combustion Solids - 98% by weight, 98% by volume. Maximum application thickness - approx. 3" (multiple 3" lifts can be applied to achieve required thickness). Colors - Natural Gray</p>
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<b>PACKAGING / COVERAGE</b>	<p><b>670 Pourable Grout is packaged in bulk units -</b></p> <p><b>Areas to be grouted should be primed first with a moisture barrier - 500 &amp; 600 series primer at a rate of 500 square feet per gallon. Allow this material to "tack-up" approximately 30 minutes.</b></p> <p><b>670 Pourable Grout - 5 Gallon Bulk Unit - approximately 2.75 cubic feet of pourable grout, consisting of the following -</b></p> <ul style="list-style-type: none"><li><b>1 EA - 5 Gallon Pail of Part A (resin)</b></li><li><b>1 EA - 15 oz. container - Part B (catalyst)</b></li><li><b>9 EA - bags Part C (chemical resistant aggregate)</b></li><li><b>1 EA - bulking tools.</b></li></ul> <p><b>670 Pourable Grout 50 Gallon Bulk Unit - approximately 27.5 cubic feet of grout, consisting of the following -</b></p> <ul style="list-style-type: none"><li><b>1 EA - 55 Gallon Drum of Part A (resin)</b></li><li><b>1 EA - container - Part B (catalyst)</b></li><li><b>90 EA - bags Part C (chemical resistant aggregate)</b></li><li><b>1 EA - bulking tools.</b></li></ul>
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<b>SUPPLEMENTAL PRODUCTS</b>	650 Topcoat.
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### SURFACE PREPARATION AND SUBSTRATES

## SURFACE PREPARATION

**New Concrete:** must have a minimum of 28 days cure, and no curing agents or sealers shall be used. Remove oil, grease or other loose or foreign materials and contaminants. A good bonding tooth, the texture of rough sandpaper, is required to maximize adhesion, with the removal of all glaze. Examples of mechanical surface prep including, but not limited to -

- A. Sandblast with steel shot, fine silica, or other similar material.
- B. Wheel Abrader
- C. Scarify

**Existing Concrete:** remove all loose, weak concrete, and any paint wax, oil, grease or other contaminants. Once the concrete has been cleaned and neutralized, mechanical surface preparation shall be used to provide a good bonding tooth, a texture of rough sandpaper, with the removal of all glaze. Examples of mechanical surface preparation including, but not limited to -

- A. Sandblast with steel shot, fine silica, or other similar material.
- B. Wheel Abrader
- B. Scarify

**Metal Surfaces:** Degrease surface prior to sandblasting. Use organic solvents, alkaline solutions, steam, hot water with detergents, or other systems that will completely remove dirt, oil, grease, etc. Blast the surface to near white SSPC-SP 10-70, or NACE No. 2 using a Venturi blast nozzle with 100psi air. To produce the 4 mil minimum anchor pattern or tooth, the blasting media used shall be a properly graded, clean, sharp angular abrasive similar to Humble Abrasive Flint S7 (6-30 mesh), Steel Grit (HG25), or Black Beauty (BB1040).

## MIXING AND EQUIPMENT

### MIXING

**Primer** - Mix Part A and Part B thoroughly, at the appropriate mix ratio based on temperature (see below).  
**Grout Mortar** - Using the supplied mixing ("bulking") containers, empty the contents of Part B into Part A and mix thoroughly, at the appropriate mix ratio based on the temperature (see below). When completed, empty the container into a mechanical mixer, draining the container for approximately 30 seconds. Start the mixer, and slowly add the Part C, chemical resistant aggregate, and mix the three components for approximately 3 minutes - until completely homogeneous. Note - Person mixing should wear a dust mask or respirator.

### Catalyst Levels

Adjust Catalyst levels in the 670 Pourable Grout based on the following table -

- 55°F-65°F - 1.0 oz. catalyst per batch of resin.
- 65°F-75°F - 0.85 oz. catalyst per batch of resin.
- 75°F-85°F - 0.70 oz. catalyst per batch of resin.

**For applications where the substrate temperature is outside the above listed chart, contact Greenstone Polymers Technical Service Department for recommendation.**

**Mixer:** A mechanical mixer designed for quick, thorough mixing of aggregate epoxy systems similar to those manufactured by -

Kol Mixal	Quick Stir, INC.
Div. of Man U Fab Inc.	P.O. Box 327
7740 Main St. N.E.	Port Clinton, Ohio 43452
Minneapolis, MN 55432	

**Important!** - The working life of the mixed blend is approximately 20 minutes. Always pour mixed batches as soon as possible. Mixed materials remaining in a container will produce heat. Keep away from combustible materials. Do not reseal mixed containers!

## APPLICATION AND SAFETY

### APPLICATION

**MOISTURE CURE PRIMER:** Apply approximately 3-4 mils 500 & 600 Series Moisture Cure Primer, by brush, roller, or "bug" sprayer. Cure to tacky finish (approximately 30-40 minutes).

**GROUT:** Cover forms with plastic or a release agent to eliminate possible pond between 670 Pourable Grout and the forms. Pour material into the form slowly from one side and allow the grout to seek its own level.

**CURE TIME** - 670 Pourable Grout will harden in approximately 2-8 hours depending on substrate temperatures. Full cure and maximum physical property development will occur after 96 hours at 75°F. The warmer the temperature, the faster the cure.

**CLEAN-UP** - Cured or hardened 670 Pourable Grout is almost impossible to remove. Clean tools and equipment immediately with hot soapy water, or a mixture of acetone and ethanol.

### SAFETY

Observe good personal hygiene. Certain personnel may be sensitive to various types of resins which may cause dermatitis. Avoid contact with skin and breathing of vapor. Read and follow all caution statements on product info bulletin, material safety data sheet and container labels for this product. This bulletin provides standard information for the system and application procedure. Since varying application conditions may not be covered, consult GREENSTONE Technical Service Department for further information.

We guarantee our product to be free of defects in material and workmanship, and to be in accordance with our company quality control standards. All data, statements and recommendations made herein are based upon information we believe to be reliable, but are made without any representation or guarantee or warranty of accuracy and are made with reservation of all patent rights. Our products are sold on the condition that the user will evaluate them, as well as our recommendations, to determine their suitability for his own purpose before adoption. Also, statements regarding the use of our products or processes are not to be construed as recommendations for their use in violation of any patent rights or in violation of any applicable laws or regulations. Liability under any condition shall be limited to replacement of material only. No liability is assumed or implied, for injury to personnel, labor costs, product loss or any other expenses incidental to the structure or operation of the plant and equipment where the system is being applied.