



**product data**

**SELECTION & SPECIFICATION DATA**

<b>TYPE &amp; DESCRIPTION</b>	GPS 642 / 642 AR Coating is a two component, fiber reinforced, high-temperature resistant, highperformance novolac vinylester system, formulated with exceptional corrosion protection while providing a tough wear-resistant surface.
<b>ADVANTAGES</b>	Cures quickly to form an exceptionally tough, impact and abrasion resistant system, cured at temperatures as low as 60°F. Excellent adhesion to concrete, steel, and wood. Minimum down time.
<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 as part of a polymer system for interior and exterior of tanks, walls, columns, curbs, pump pads, equipment and structural steel.
<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 - 16,000 psi (resin) Tensile Strength - 13,300 psi (resin) Impact Strength - 100 in./lbs. Indentation - No indentation MIL-D-3134F Abrasion Resistance - 642 - 32 milligrams average loss / 1000 cycles, Taber CS-17 Wheel 1000 gram weight. 642 AR - 9 milligrams average loss / 1000 cycles, Taber CS-17 Wheel 1000 gram weight. Maximum Temperatures - Wet Exposure 190°F, Dry Heat 300°F Shelf Life - 1 Year (warehouse conditions) Working Time - approximately 45 minutes at 75°F. Potlife - approximately 30 minutes at 75°F. Cure Time - hardens in 8-12 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. Solids - 98% by weight, 98% by volume. Appearance - Matte Finish Colors - Dark Gray, Charcoal</p>
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**Recommended Film Thickness -**

3 multi-pass spray coats will produce the 35-40 mil dry film thickness recommended for immersion service.

**PACKAGING / COVERAGE**

**642 (642 AR) Topcoat -**

- 1 GALLON KIT - covers approximately 40 square feet at 40 mils - containing the following -**
  - 1 container - Part A (resin)**
  - 1 container - Part B (hardener)**
- 5 GALLON KIT - covers approximately 200 square feet at 40 mils - containing the following -**
  - 1 container - Part A (resin)**
  - 1 container - Part B (resin)**

**SUPPLEMENTAL PRODUCTS**

500 & 600 Series Primer, 620 Flooring System, 550 Grout, 662 Lining System.

## 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

Note: Holes and depressions should be prefilled, prior to application of 642 (642 AR). All surfaces must be dry prior to application of polymer system.

**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

Mix Part A and B thoroughly, with a low rpm "jiffy" type mixer for 2 minutes until completely homogeneous. \*Product may be thinned up to 10% with MEK for improved application properties.

**Important!** - The working life of the mixed blend is approximately 25 minutes. Mixed materials remaining in a container will produce heat. Keep away from combustible materials. Do not reseal mixed containers!

## APPLICATION AND SAFETY

### APPLICATION

**Caution!** Application in direct sunlight, resulting in rising surface temperature, may cause blistering of the materials due to expansion of entrapped air or moisture in the concrete. Concrete surfaces that have been in direct sunlight must be shaded for 24 hours prior to application, and remain shaded until the initial set of the polymer. When the substrate temperature is rising, it is recommended to postpone application.

**Minimum application temperature:** Do not apply when substrate temperature is below 50°F.

For application, the 642 (642 AR) Coating resin & hardener should be stored at a minimum temperature of 70°F. Always apply the material as soon as blended. The pot life is approximately 25 minutes, and the working life is approximately 40 minutes.

**APPLICATION** - 642 (642 AR) Coating can be applied by spray, brush, or roller. Three coats recommended for immersion applications, at 12-16 mils per coat.

**Spray:** Use a Graco King 45 to 1 type, hydrospray pump, Model 208-311. High pressure 3/4" inside diameter nylon hose not to exceed 25 feet. All hoses rates 6000 psi. Inlet pressure to the pump shall be 100 psi.

**Brush:** A high quality natural bristle brush should be used.

**Roller:** Use a 3/8" nap roller with phenolic core.

**CURE TIME** - Will harden in approximately 8-12 hours at 75°F. The warmer the temperature, the faster the cure. Allow 24 hours, at 75°F, for light traffic, and 96 hours for full cure.

Minimum recoat times are as follows: 12 hours at 60°F, 4 hours at 75°F, 2 hours at 90°F

**CLEAN-UP** - Cured or hardened 642 (642 AR) is almost impossible to remove. Clean tools and equipment immediately with hot soapy water, or a mixture a 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.