GREENSTONE Polymer Systems Inc.

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Greenstone 830 AR Mortar

product data

SELECTION & SPECIFICATION DATA

TYPE & DESCRIPTION

830 AR Mortar is a 100% solids advanced ceramic composite, formulated to protect substrates and equipment from aggressive erosion, chemical attack and corrosion. Trowel applied at a nominal film thickness of 1/2" per coat. Formulated for extremely abrasive and corrosive environments where substrate loss is a major concern. Used either to rebuild eroded surfaces or to provide a wear resistant surface with an extended service life over any silica based polymer.

ADVANTAGES

830 AR Mortar cures at temperatures as low as 50°F to form an exceptionally abrasion resistant polymer-aggregate matrix. 830 AR is applied to a primed surface by trowel, where close tolerances and a smooth finish are required. Dramatically outlasts other wear resistant materials and coatings, extending the operating cycles of equipment. Outperforms weld overlays and silica based polymer matrixes. May be molded to precise dimentions for critical tolerances. Performs well in a variety of fluctuating chemical environments.

USES

830 AR may be used alone, or in conjunction with other Greenstone systems. This trowel applied mortar system greatly extendes surface wear of a flooring surface and will provide predictable preventative maintenance.

FOR INDUSTRIAL USE ONLY!

PHYSICAL DATA

Compressive Strength - 13,500 psi
Tensile Strength - 6,350 psi
Impact Strength - 100 in./lbs.
Indentation - No indentation MIL-D-3134F
Maximum Temperatures - Wet Exposure 160°F, Dry Heat 250°F
Shelf Life - 1 Year (warehouse conditions)
Working Time - approximately 30 minutes at 75°F.
Potlife - approximately 20 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 48 hours at 75°F for full cure.
Solids - 100%
Colors - Carbide Gray.

PACKAGING / COVERAGE

830 AR MORTAR - packaged in batches -

1 BATCH KIT - covers approximately 8 square feet a 1/2 inch - containing the following -
- ***1 container - Part A (resin)***
- ***1 container - Part B (hardener)***
- ***1 bag - Part C (chemical resistant aggregate)***

3 BATCH KIT - covers approximately 24 square feet at 1/2 inch - containing the following -
- ***1 container - Part A (resin)***
- ***1 container - Part B (resin)***
- ***3 bags - Part C (chemical resistant aggregate)***

Required - 330 PRIMER, 830 AR Sealer/Veilcoat or 810 AR Coating

830 AR PATCH KIT (4 square feet at 1/2") 1EA - 5 Gallon Pail - containing the following.

330 Primer
- *1 container - Part A (resin)*
- *1 container - Part B (hardener)*

830 AR Flooring
- *1 container - Part A (resin)*
- *1 container - Part B (resin)*
- *1 bag - Part C (abrasion and chemically resistant aggregate)*

SUPPLEMENTAL PRODUCTS

830 AR Sealer, 350 Grout, 300 Coving, 810 AR Coating, 300 Flex

Chemical Resistance

Recommended for exposure to many concentrations of acids, alkalies, bleaches and other chemicals. Please refer to the Greestone Chemical Resistance Guide for a comprehensive list of chemicals and the corresponding resistance ratings.

SURFACE PREPARATION AND SUBSTRATES

SURFACE PREPARATION

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).

Note: Holes and depressions 1/2" or deeper should be prefilled with 830 AR Flooring, or a similar system, prior to application. All surfaces must be dry prior to application of polymer system.

New Contrete: must have a minimum of 28 days cure, and no curing agents or sealers shall be used. Remove oil, grease or other lose or foreighn materials and contaminanst. A good bonding tooth, the texture of rough

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, the texture of rough sandpaper, with the removal of all glaze.

<u>Examples of mechanical surface preparation including, but not limited to -</u>

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

MIXING AND EQUIPMENT

MIXING

Primer - Add the Part B to the Part A and mix thoroughly until uniform in color with no streaking.

Mortar - Empty the contents of Part B into Part A and mix thoroughly. When completed, empty the entire container into a mechanical mixer, draining for approximately 30 seconds. Start the mixer, and slowly add the Part C, aggregate, and mix the three components for approximately 3 minutes - until completely homogeneous.

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

Kol Mixal
Div. of Man U Fab Inc.
7740 Main St. N.E.
Minneapolis, MN 55432

Quick Stir, INC.
P.O. Box 327
Port Clinton, Ohio 43452

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

PRIMER: Apply approximately 8 mils of 330 Primer by brush or roller. Spread the mortar immediately, before the Primer has hardened, which will occur in approximately 60 minutes at 75°F.

MORTAR: Spread mixed 830 AR Mortar evenly on the substrate. Trowel evenly over the primed surface in long, even strokes with moderated trowel pressure, filling in low spots as you go. Remove any surface marks by quickly passing over the mortar surface with light pressure. Seal the surface with the 830 AR Sealer/Veilcoat or 810 AR Coating.

CURE TIME - 830 AR Flooring will harden within a few hours at 75°F. The warmer the temperature, the faster the cure. Allow 96 hours for full cure.

CLEAN-UP - Cured or hardened Greenstone 830 AR Flooring 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. Since varying application conditions may not be covered, consult GREENSTONE Technical Service Department for further information.