

# Greenstone 870 AR Castable Grout

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## product data

#### SELECTION & SPECIFICATION DATA

# TYPE & DESCRIPTION

870 AR Castable Grout is a 100% solids advanced ceramic composite with flowable viscosity, for the repair and protection of substrates exposted to severe erosion, abrasion and chemical attack. It can be hand troweled on horizontal surfaces at a minimum thicknes of 1/8", as well as poured into casting applications at a minimum thickness of 3/8" or more. May be molded where close tolerances in application and a smooth finish are required.

### **ADVANTAGES**

870 AR Castable Grout cures at temperatures as low as 50°F to form an exceptionally abrasion resistant polymer-aggregate matrix. Used 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. Performs well in a variety of fluctuating chemical environments.

#### USES

870 AR Castable Grout may be used alone, or in conjunction with other Greenstone systems. This heavy duty system greatly extendes surface wear and will provide predictable preventative maintenance.

- Exit Cones
- Transport Pipelines for Abrasive Slurries
- Hoppers and Silos
- Cyclones
- Lined Chutes
- Slurry Pumps and Pipe Elbows

#### FOR INDUSTRIAL USE ONLY!

#### **PHYSICAL DATA**

Compressive Strength - 15,250 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 - Charcoal.

# PACKAGING / COVERAGE

### 870 AR Castable Grout -

Supplied in two package sizes - Each package contains 3 premeasured containers. This includes 870 AR Castable Grout (Part A, Part B, and Part C).

#### 1/3 Cubic Food Kit (16 square feet at 1/4")

#### **870 AR Castable Grout**

1 container - Part A (resin)

1 container - Part B (resin)

1 bag - Part C (abrasion and chemically resistant aggregate)

#### 1 Cubic Foot Kit (48 square feet at 1/4")

### 870 AR Castable Grout

1 container - Part A (resin)

1 container - Part B (resin)

3 bags - Part C (abrasion and chemically resistant aggregate)

# 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 1/4" or deeper should be prefilled with 870 AR Castable Grout, or a similar system, prior to application. All surfaces must be dry prior to application of polymer system.

#### MIXING AND EQUIPMENT

#### MIXING

**Castable Grout** - 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 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**

TROWELING: Apply with firm pressure using a clean steel trowel, or supplied plastic applicator to the required film thickness. Fill in low spots as you go. Remove any surface marks by quickly passing over the mortar surface with light pressure. 870 AR Castable Grout cannot be applied to vertical surfaces due to its "slurry" viscosity.

CASTABLE GROUT: Use mechanical vibration or manually applied pressure to compact and consolidate product, insuring maximum density and and air void free fil. Apply a suitable release agent to the mold prior to placement. Whenever possible apply a thin coat to the mold itself to ensure wet to wet contact between the mold and 870 AR Castable Grout applied to a metal base.

CURE TIME - 870 AR Castable Grout will harden within a few hours at 75°F. The warmer the temperature, the faster the cure. Allow 48 hours for full cure.

CLEAN-UP - Cured or hardened Greenstone 870 AR Castable Grout 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.

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.

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