# PRE-KRETE® C-17 TECHNICAL DATA SHEET

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# **Pocono Fabricators**

SAUEREISEN COMPANY

Pocono Fabricators' C-17 Pre-Krete® is calcium oxide hydraulic cement designed to provide effective corrosion and/or abrasion resistance against various acids and chemicals commonly found in industry. Pre-Krete C-17 is used to line new equipment and to repair and restore existing equipment. It is recommended that the specific application be discussed with the factory or an authorized Pre-Krete representative prior to the installation. This will ensure the system's ability to perform as expected.

#### **COMMON APPLICATIONS**

- Stacks
- Breechings
- Duct Work
- Precipitators
- Process Equipment
- Flooring
- Causticizers
- Potable Water Heaters
- Pipe (centrifugal cast)
- Liquor Tanks
- Condensate Tanks
- Coal Handling Equipment

#### **COMMON MARKETS**

- Pulp and Paper
- Power Generation
- Mining
- Waste Treatment
- Chemical Process
- Petro Chemical
- Cement Manufacturing
- Metal Manufacturing
- Food Process

#### **TECHNICAL DATA**

- Compressive Strength ASTM C-109-86
  - 1 Day Cure 5,540 psi
  - 3 Day Cure 6,985 psi
  - 7 Day Cure 8,170 psi
  - 28 Day Cure 10,375 psi

- Tensile Strength ASTM C-109-85
  - 1 Day Čure 745 psi
  - 7 Day Cure 615 psi
  - 28 Day Cure 660 psi
- Water Absorption per MIL-T-12295 = 81%
- Wet density / Coverage 140 lbs. per cubic foot / 4.2 sq. ft. per 50 lb. bag @ a 1" thickness
- Coefficient of Expansion (in./in/°F) 6.2 X 10-6
- Thermocycling: C-17 applied to steel, Heated to 350°F and plunged into 40°F water @ 100 cycles with no adverse effects.
- Maximum temperature: 800°F (after special curing).
- Color light green
- Shelf Life 1 year
- Packaged in 50-pound paper sacks @ 70 per skid

### INSTALLATION GUIDELINES

The following specifications are general installation procedures that cannot include all the variables associated with field applications. It does not contain the detailed information necessary to successfully install a Pre-Krete system. It serves only as a guide to assist in the better understanding of Pre-Krete C-17. Experienced Pre-Krete applicatos are familiar with the system. Their product knowledge and experience will ensure the best results under the most adverse field conditions. If you are not familiar with a qualified applicator in your area, contact the factory. Detailed Application Guide/Specifications are available on our website – www.pre-krete.com.

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#### SURFACE PREPARATION

Substrate (masonry or steel) must be clean, dry and structurally sound, free of any oil, grease or loosely bonded contaminants, coatings or linings. Grit blasting, chemical or mechanical cleaning can be utilized to remove the previously referenced conditions. It is not necessary or recommended to produce a bright or white metal surface. A rusted surface will enhance the mechanical bond, provided there is no lamination of the oxidized metal.

#### **MIXING**

Pre-Krete is mixed at the rate of  $\frac{3}{4}$  to 1 gallon of water per 50-pound bag. The amount of water may vary depending on weather conditions. When hand trowling, the consistency should be that if you place Pre-Krete in the shape of a golf ball in your hand and press down lightly, then turn your hand over – the Pre-Krete should stick to your fingers.

### **APPLICATION**

Pre-Krete can be trowel applied over a non-reinforced surface or expanded metal. It may be gunned (wet or dry) over any surface with a wire mesh anchor system. The thickness of the Pre-Krete is dependent on the operating conditions of the equipment. The wire mesh anchoring system must be covered by a minimum 1" of Pre-Krete.

#### **METAL REINFORCEMENT**

Metal reinforcement is required when thicknesses are 1" or greater. This will enhance the installation and is required in larger structures. Suggested reinforcements are:

- 1. Pre-krete applied  $\frac{3}{4}'' 1-\frac{1}{2}''$  thickness:  $\frac{3}{4}'' \times 13$  gauge carbon steel, unflattened, standard diamond pattern expended metal lathe. The expanded metal is secured tight to the substrate on 12'' centers.
- 2. Pre-krete applied at 1-1/2" thickness or greater: 2" x 4" or 4" x 4", 12 or 14 gauge, welded wire fabric anchored on 12" centers at a distance from the substrate of ½" to 1-1/2" depending on the thickness of the Pre-Krete.

## **CURING**

All Pre-Krete linings must be properly cured. There are four recommended curing methods that include curing compound, moisture cure, immersion cure, and heat-up. Contact the factory for the method best suited for your application. Concrete Sealer curing compound must **NOT** be used in potable water applications. Temperature during curing must be maintained from 40°F to 90°F. Curing times - initial set is approximately 2 - 4 hours; final set is approximately 6 hours.

# MATERIAL SAFETY DATA SHEETS (MSDS)

Current MSDS are available on our website: www.pre-krete.com

#### **NOTES:**

