



Pocono Fabricators

160 Gamma Drive, Pittsburgh, PA 15238-2989
Phone (610) 400-1885 Fax (610) 400-1863

www.pre-krete.com
info@pre-krete.com

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PRE-KRETE® FORMULA C-17 DATA SHEET

Pocono Fabricators' C-17 Pre-Krete® was developed in 1942. It is a calcium oxide hydraulic cement designed to provide effective corrosion and/or abrasion resistance against various acids and chemicals commonly found in industry. 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. Pre-Krete C-17 is used to line new equipment and to repair and restore existing equipment.

COMMON APPLICATIONS

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

COMMON MARKETS

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

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. An experienced Pre-Krete® applicator is 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.

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 white 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 $\frac{1}{2}$ to 1 gallon of water per 50-pound bag. The amount of water may vary depending on weather conditions. The consistency should be that if you put a golf ball size on your hand pressing down lightly, then turn your hand over – the Pre-Krete should stick to your fingers.

APPLICATION

Pre-Krete can be hand 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.

REINFORCEMENT

Metal reinforcement will enhance the installation and is required in larger structures. Suggested reinforcements are:

1. $\frac{1}{2}$ " x 13 gauge carbon steel, unflattened, standard diamond pattern expanded metal lathe.
The expanded metal is secured tight to the substrate on 12" centers.
2. 2" x 2" or 2" x 4", 12 or 14 gauge, welded wire fabric anchored on 12" centers at a distance from the substrate of $\frac{1}{2}$ " to 1-1/2" depending on the thickness of the Pre-Krete®.
4" x 4" wire fabric is required for temperatures of 400°F.

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 must not be used in potable water applications. Temperature during curing must be maintained from 40°F to 90°F. Curing times are: initial set is approximately 4 hours, final set is approximately 6 hours.

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 Cure - 745 psi
 - 7 Day Cure - 615 psi
 - 28 Day Cure - 660 psi
- Water Absorption per MIL-T-12295 = 81%
- Wet Density - 140 lbs./cu. ft.
- Coefficient of Expansion (in./in/°F) 6.2×10^{-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.