



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 G-8 TECHNICAL DATA SHEET

Pocono Fabricators Pre-Krete G-8 was developed in 1961. It is an aluminous 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 G-8 is used to line new equipment, or repair and restore existing equipment.

COMMON APPLICATIONS

Stacks
Breechings
Ductwork
Precipitators

Process Equipment
Flooring
Potable Water Heaters
Fire Training Facilities

Pipe
Potable Water Tanks
Condensate Tanks
Coal Handling Equipment

COMMON MARKETS

Power Generation
Waste Treatment
Food Process

Chemical Process
Metal Manufacturing
Petro Chemical

Pulp and Paper
Mining
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 G-8. 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 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 $\frac{1}{2}$ 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. 3/4" x 13-gage carbon steel, unflattened, standard diamond pattern expanded metal lath. The expanded metal is secured tight to the substrate on 12" centers.
2. 2" x 2" or 4" x 4", 14 or 12 gage, welded wire fabric anchored on 12" centers at a distance from the substrate of 1/2" to 1-1/2" depending on the thickness of the Pre-Krete. 4" x 4" wire fabric is required for temperatures over 400oF.

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^oF to 90^oF. 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 - 5,840 psi
 - 3 Day Cure - 9,084 psi
 - 7 Day Cure - 12,260 psi
 - 28 Day Cure - 13,500 psi
- Tensile Strength (ASTM C-190-85)
 - 3 Day Cure - 703 psi
 - 7 Day Cure - 754 psi
 - 28 Day Cure - 844 psi
- Water Absorption per MIL-T-12295 = 8.2%
- Wet density / Coverage - 140 lbs. per cubic foot / 4.2 sq. ft. per 50 lb. bag
- Coefficient of Expansion (in./in./^oF) 6.4×10^{-6}
- Thermocycling - G-8 applied to steel, heated to 350^oF and plunged into 40^oF water @ 100cycles with no adverse effects.
- Maximum temperature: 1000^oF (after special curing)

- Color: tan
- Packaged in 50-pound paper sacks @ 70 per skid.