DESCRIPTION
Super-Krete® S-1400 Pene-Krete® Additive™ (for Portland Cement) is a non-hazardous liquid additive formulated to create a chemical reaction within Portland cement based products. The addition of Pene-Krete Additive enhances the concrete’s natural hydration process by prolonging the hydration of the cementing materials and increasing workability. The addition of Pene-Krete Additive mixed with any Portland cement-based products such as but not limited to concrete, plaster, pre-cast concrete, gunite and block will densify the substrate, increase its structural strength, and encapsulate and expel excess alkali, lime and other contaminants from with substrate to allow for concrete coating on the eighth day after application. When concrete is treated, its capillary pores are reduced in both size and number and the concrete becomes dramatically less porous. After its reaction, Pene-Krete Additive fills all remaining pores and capillaries with long, needle-like crystals throughout the concrete mass. The resulting concrete is less permeable to the migration of water or waterborne chemicals. Pene-Krete Additive can increase compressive strength up to 23% depending on the amount and quality of the Portland cement contained in the mix design. The addition of Pene-Krete Additive reduces the acceleration of Portland cement-based materials and reduces curing cracks substantially. Concrete is overall improved when using Pene-Krete Additive and it can also be used as a water reducing agent in concrete mixes.

ADVANTAGES
- Increases Compressive Strength of Concrete Up to 23%
- Eliminates carbonation attack
- Reduces Moisture Vapor & Water Transmission
- Reduces substrate permeability
- Protects Reinforcing Steel From Rust
- Resists mold & mildew
- Reduces Radon Transmissions
- Resists freeze/thaw damage
- Prevents Intrusion of Water & Chemicals
- Prevents Calcium Chloride Deterioration
- Contains zero VOC’s
- Concrete can be coated on the 8th day after application
- Internal Waterproofing
- Cures concrete before 28 days
- Purges Excess Alkali & Free Lime From Concrete Substrate
- Self-Seals Any Hairline Cracks That May Occur From Subsequent Shrinkage / Settling / Shifting
- Moisture Vapor Emission Reduction
- Pene-Krete Additive reduces moisture emissions in many applications, typically within standards necessary to apply flooring goods and coatings over cementitious substrates. Conducting moisture tests after Pene-Krete Additive used is always recommended.

USES
- Ready-Mix Concrete
- Precast Concrete
- Structural Concrete
- Architectural Concrete
- Below Grade Concrete Water Tanks
- Fueling Facilities
- Below Grade Concrete Walls
- Freezer Floors
- Any Portland Cement-Based Substrates
- Parking Garages
- Curing Agent
- Radar Reduction
- Moisture Vapor Reduction
- Water Reduction

CSI RELATED SECTIONS
- 03 01 30.71 - Strengthening of Cast-In-Place Concrete
- 03 01 00 - Common Work Results for Masonry
- 03 01 40.72 - Strengthening of Pre-Cast Concrete
- 04 05 00 - Common Work Results for Masonry
- 03 05 00 - Common Work Results for Concrete
- 07 11 00 - Damp-proofing
- 03 31 00 - Structural Concrete
- 07 16 16 - Crystalline Waterproofing
- 03 51 00 - Water Reducents
- 07 19 00 - Water Repellents

GENERAL INFORMATION
Pene-Krete has been solving severe water and moisture problems within concrete since 1988 in every type of climate. Application of Pene-Krete is required prior to installation of any Super-Krete coatings, paints, stains and sealers. Pene-Krete Additive is formulated to create a chemical reaction when mixed with water, alkali and free-lime within a Portland cement concrete matrix. The matrix becomes extremely dense by filling the capillaries with a crystalline structure. As the crystallization process takes place, all excess chemicals and water are purged to the surface providing the matrix with an immediate, water-resistant-structure internally. After application and before coating, neutralize the concrete surface with a solution of trisodium phosphate and water.

Moisture Vapor Emission Reduction
Pene-Krete Additive reduces moisture emissions in many applications, typically within standards necessary to apply flooring goods and coatings over cementitious substrates. Conducting moisture tests after Pene-Krete Additive used is always recommended.
RECOMMENDED DOSAGE AND MIXING PROCEDURE
Use Pene-Krete Additive full strength, as is (DO NOT DILUTE). Thoroughly agitate product or stir with a drill and paddle mixer attachment. For ready-mixed concrete, add 14 oz. of Pene-Krete Additive per each cubic yard of pre-mixed concrete. Mix thoroughly with a mechanical mixer for approximately 5 minutes at high speed.

For best results and maximum workability, add additional water to the concrete matrix to create a flowable mix.

Note: Adding more than the recommended 2 oz. of Pene-Krete Additive per bag of Portland cement will decrease set-up time and prolong working time.

The recommended dosage of Pene-Krete Additive to all other Portland cement mixtures is 2 oz. per each 94 lb. bag of Portland cement. Add Pene-Krete Additive last and mix thoroughly with a mechanical mixer for a minimum of 5 minutes before placement.

Cure Time
Pene-Krete Additive will typically gel and force all excess chemicals to the surface within a 24-hour period. Although excess chemicals are forced to the surface within 24 hours, the substrate will not reach its full increased strength for 28 days.

Clean Up
Clean tools and equipment and flush sprayer with clean water immediately after use.

Tools Required
- Graduated container or dosing equipment
- 5 Gallon Pail
- ½” Drill
- Paddle Mixer

Packaging
- 1 gallon bottles / 4 per case
- 5 gallon pails / 36 per pallet
- 55 gallon drums / 4 per pallet

Shelf Life
2 years when properly stored.

Storage
Store in a cool, dry place. Keep from moisture and keep from freezing.

V.O.C. Content
<100 g / liter

Yield
14oz. per cubic yard of concrete mix

Appearance
Clear white liquid

Odor
None

CAUTION
Protect from glass and metal surfaces. Cannot be removed.

Keep away from children. Do not take internally. Always use safety gloves, appropriate eye protection, and appropriate OSHA/NIOSH approved respirator in areas with poor ventilation and when exposed to spray mist both indoors and outdoors. If ingested, seek medical attention immediately.

LIMITATIONS
Super-Krete products are to be applied only when surface temperatures are above 55° F and rising and not to exceed 100° F. Super-Krete products are not to be applied when precipitation is expected within 24 hours following completion of application. Do not allow materials to freeze. Each Super-Krete product acts as an inherent part of a proven system. Super-Krete products are professional, contractor grade products. Training in the use of these products is available. Consult Super-Krete for information and assistance locating approved contractors in your area or for training class dates.

NOTE: Super-Krete International, Inc. believes this information to be true to the best of our knowledge and products are of the highest quality and uniform within manufacturing tolerances. Since no control is exercised over product use, no warranty, expressed or implied is made as to the effect of such use and no liability is assumed directly or indirectly, from their use. Buyers and users are encouraged to conduct their own test prior to application.

WARRANTY
Super-Krete products are warranted only when applied by Super-Krete Certified Applicators in accordance with Super-Krete specifications. No warranty applies to products applied over concrete substrates with moisture vapor transmissions exceeding (3 lbs.)/(1,000 sf) of surface area. Super-Krete provides a 5 year warranty when products are applied by Certified applicators. To apply for warranty, refer to the Super-Krete Limited Warranty and form filing at www.super-krete.com.