

S-1300 Pene-Krete®

TECHNICAL DATA SHEET

DESCRIPTION

Super-Krete® Pene-Krete® is a non-hazardous, spray-applied, *penetrating* sealer for use on all Portland cement-based substrates such as concrete and masonry. Cross-linking chemicals cause Pene-Krete to react with the alkali and alkaline in common Portland cement, creating a crystal-like shield within the pores, thus reducing vapor emissions and creating a more dense substrate. The combination of clean, dense concrete along with reduced water and vapor transmissions provide the perfect surface to receive coatings. This protective shield increases the strength of new and existing concrete and other masonry substrates. This penetrating sealer will reduce moisture vapor emissions without leaving a surface residue. Pene-Krete is a required product for use with all Super-Krete systems over cementitious substrates.

USES

New / Old / Existing Concrete	Dams / Bridges / Highways
Industrial Concrete Floors	Renovation of Aged Concrete
Foundations & Parking Structures	Damp-proofing
Fire-Damaged Slabs	Freezer Floors
Auto-Repair Shops	Parking Garages
Sewage Treatment Plants	Retaining Walls
Areas with Efflorescence	Radon Reduction
Below-grade / On-grade / Above-grade / Overhead Areas	
Masonry / Stucco / Block / Precast / Plaster / Gunite and More!	

ADVANTAGES

Increases Compressive Strength of Concrete Up to 23%	Resists Mold & Mildew
Increases Soating Life as Much as 300%	Contains Zero VOC's
Penetrates Substrates Up to 8.5" Deep	Reduces Substrate Permeability
Reduces Moisture Vapor Transmission (MVT)	Eliminates Carbonation Attack
Protects Reinforcing Steel From Rust	Reduces Radon Transmission
Prevents Freeze / Thaw Damage	Prevents Chemical Intrusion
Preserves & Strengthens Fire-Damaged Concrete	Environmentally Safe
Stops Efflorescence	
Purges Embedded Odors Such as Smoke Out From Concrete Substrate	
Purges Excess Alkali / Lime / Petroleum / Acids & Other Contaminants From Concrete Substrate	



CSI RELATED SECTIONS

03 01 30.71 - Strengthening of Cast-In-Place Concrete	04 05 00 - Common Work Results for Masonry
03 01 40.72 - Strengthening of Pre-Cast Concrete	07 11 00 - Damp-proofing
03 05 00 - Common Work Results for Concrete	07 16 16 - Crystalline Waterproofing
03 31 00 - Structural Concrete	07 19 00 - Water Repellents
03 39 00 - Concrete Curing	

MOISTURE VAPOR EMISSION REDUCTION

Pene-Krete reduces moisture emissions in many applications, typically within standards necessary to apply flooring goods and coatings over cementitious substrates. Pene-Krete is recommended for use where moisture is present in substrates such as retaining walls, basement walls and floors, stucco and other cement-based substrates. Pene-Krete is also recommended for use prior to the installation of any coating over cementitious substrates. Pene-Krete is designed to react with common Portland cement and will not work on other materials such as brick, stone, metal or wood. Conducting a moisture vapor test before and after Pene-Krete treatment is always recommended.

Pene-Krete is designed for use as an integral sealer for concrete, not a topical sealer.



SURFACE PREPARATION

Surfaces that are to be repaired or coated must be structurally sound. Surface damage such as surface deterioration, cracks and spalls can typically be repaired. However, structural integrity is critical to the overall success of any coating or overlay.

Super-Krete International, Inc. recommends that all Super-Krete applications over concrete first be treated with Pene-Krete.

1. Remove existing dirt, grime, laitance, and debris mechanically using a blower. Shot-blasting or sand-blasting should be performed to achieve a profiled surface. All surfaces to receive coatings must be profiled.
2. Clean and degrease the surface using Super-Krete Heavy Duty Degreaser™. For detailed directions, see Super-Krete Product Specification S-12000 Heavy Duty Degreaser.
3. Apply Super-Krete Pene-Krete. For detailed directions, see Super-Krete Product Specification S-1300 Pene-Krete.

Always refer to Super-Krete Specification S-1 for surface testing, cleaning, preparation and porosity requirements prior to applying any coating to any concrete surface.

MIXING

Use Pene-Krete full strength, as is (DO NOT DILUTE). Thoroughly agitate product or stir with a drill and "Jiffy®" mixer tool. Strain material and pour into sprayer unit.

APPLICATION

Pene-Krete is to be used on porous concrete substrates to ensure penetration. Surface to be treated must be porous and profiled. If surface porosity is uncertain, perform a water-surface test (pour a small quantity of water on the surface that is to be treated; if the water beads on the surface, it is not sufficiently porous and must be profiled further. If the surface absorbs the water, it will also likely absorb Pene-Krete). Ensure that the entire surface has adequate porosity.

Using a hand-help sprayer (do not pour Pene-Krete directly onto the surface – use a sprayer only), completely saturate the surface with Pene-Krete but do not allow to puddle. Evenly spread Pene-Krete into the surface with a soft bristled broom. Continue to saturate any areas that appear to be drying too quickly. Note: If the surface becomes slippery after 30 minutes, this means the surface is either sufficiently saturated or the surface did not have sufficient porosity for the Pene-Krete product to penetrate. Immediately remove any slippery residue by rinsing with clean water and scrubbing with a stiff bristled broom. Pene-Krete must not be allowed to puddle on the surface.

FOR NEW CONCRETE (Less than 28 days)

Apply undiluted Pene-Krete onto concrete surface with a low-pressure sprayer following final finishing operations and after all surface water has evaporated and the concrete surface has hardened. To ensure proper performance, apply Pene-Krete to the entire surface area as soon as the surface can bear foot traffic. Do not allow Pene-Krete to puddle on surface.

FOR EXISTING CONCRETE (After 28 days)

1. Saturate the surface with clean water by sprayer and allow surface water to dry.
2. **On-Grade Application:** Saturate the surface with Pene-Krete by sprayer only to refusal. Remove any pooling by working the material into a more porous area. Allow 1 hour for Pene-Krete to cure, followed by 3 saturations of water at 1 hour intervals to drive product full depth.
Vertical and Overhead Application: Saturate the surface with 3 applications of Pene-Krete by sprayer at 30 minute intervals. 1 hour after final application, saturate the surface with 3 applications of water by sprayer to drive product full depth.
3. Allow Pene-Krete application to cure for 24 hours.
4. After curing period check surface for any efflorescence. If efflorescence is present re-apply until no residue remains after curing.

Note: If Pene-Krete does not penetrate the substrate, remove immediately with water wash.



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 is an integral part of all Super-Krete application systems over concrete.

Coverage Rate 300 sf / gallon
**Coverage rates will vary, this is an approximation only. Actual coverage will vary due to substrate conditions, surface porosity and ambient conditions.*

Drying Time
Pene-Krete penetrates in approximately 24 hours, influenced somewhat by temperature, humidity and job conditions. A floor treated with Pene-Krete must be completely cure before accepting any coatings. Allow 24 hours before proceeding with application of coatings or sealers.

Cure Time
Pene-Krete will typically gel and force all excess chemicals to the surface within a 24-hour period. However, if after 24 hours water or excess alkali appears on the surface, clean the surface with clean water and saturate the surface again with Pene-Krete. Although excess chemicals will be 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 promptly and flush sprayer with clean water immediately after use.

Shelf Life 2 years when properly stored.

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

Non-toxic Yes

Water-based Yes

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

Tools Required
Empty 5 Gallon Pail(s)
Soft Bristled Broom
Pump Sprayer
Mixing Paddle
Drill

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

** Unused portions of Pene-Krete will remain usable when stored in a tightly-sealed container.*

Flashpoint Non-flammable

Appearance Clear to hazy white syrupy liquid

Viscosity 1000 cps. (max.)

Odor None or musty

Specific Gravity 1.134

pH 1.3

Percent Volatiles By Volume 0

Penetrating Depth Up to 8.5 in

CAUTION

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.

