

S-1300 Pene-Krete®

TECHNICAL DATA SHEET

DESCRIPTION

S-1300 Pene-Krete® is a non-hazardous, spray-applied, *penetrating* densifier for use on all Portland cement-based substrates such as concrete and masonry. Cross-linking chemicals cause S-1300 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 densifier will reduce moisture vapor emissions without leaving a surface residue.

USES

New / Old / Existing Concrete
Industrial Concrete Floors
Foundations & Parking Structures
Fire-Damaged Slabs
Auto-Repair Shops
Sewage Treatment Plants Areas
with Efflorescence
Below-grade / On-grade / Above-grade / Overhead Areas
Masonry / Stucco / Block / Precast / Plaster / Guniting and more.

Dams / Bridges / Highways
Renovation of Aged Concrete
Damp-proofing
Freezer Floors
Parking Garages
Retaining Walls
Radon Reduction

ADVANTAGES

Increases Compressive Strength of concrete up to 23%	Resists mold and mildew
Increases coating life as much as 300% Penetrates substrates up to 8.5" deep	Contains zero VOC's
Reduces moisture vapor transmission (MVT) Protects reinforcing steel From rust	Reduces substrate permeability
Prevents freeze/thaw damage	Eliminates Carbonation attack
Preserves and strengthens fire-damaged concrete Stops efflorescence	Reduces radon transmission
Purges embedded odors such as smoke out from concrete substrate	Prevents chemical intrusion
Purges excess alkali/lime/petroleum/acids & other contaminants from concrete substrate	Environmentally safe



CSI RELATED SECTIONS

03 01 30.71 - Strengthening of Cast-In-Place Concrete
03 01 40.72 - Strengthening of Pre-Cast Concrete
05 00 - Common Work Results for Concrete
03 31 00 - Structural Concrete

3 39 00 - Concrete Curing
4 05 00 - Common Work Results for Masonry
07 11 00 - Damp-proofing
07 16 16 - Crystalline Waterproofing
07 19 00 - Water Repellents

MOISTURE VAPOR EMISSIONS PRECAUTIONS:

All concrete floors not poured over an effective moisture vapor retarder are subject to possible moisture vapor transmission that may lead to blistering and failure of the coating system. It is the coating applicator's responsibility to conduct calcium chloride testing in compliance with ASTM F1869, or relative humidity probe testing in compliance with ASTM F2170, to determine if excessive levels of vapor emissions are present before applying any coatings. Arizona Polymer Flooring offers **S-1300 Pene-Krete®** for cementitious overlay products and **VaporSolve® Moisture Remediation** systems for resinous floor coatings. Consult our technical service department. Arizona Polymer Flooring and its sales agents will not be responsible for coating failures due to undetected moisture vapor emissions.

S-1300 Pene-Krete is designed for use as a densifier for concrete, not a topical sealer.

Super-Krete® Products is a Division of Arizona Polymer Flooring, Inc.

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S-1300 Pene-Krete® 032317



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.

Arizona Polymer Flooring recommends that all Super-Krete cementitious overlay product applications, over concrete, first be treated with Pene-Krete.

1. Remove existing dirt, grime, laitance, and debris.
2. Clean and degrease the surface using S-12000 Heavy Duty Degreaser™. For detailed directions, see the Super-Krete Product Specification S-12000 Heavy Duty Degreaser.
3. Apply S-1300 Pene-Krete.

Always refer to the **Super-Krete Products Surface Preparation Guide** for surface testing, cleaning, preparation and porosity requirements prior to applying any coating on coating any concrete surface.

MIXING

Use S-1300 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

S-1300 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 S-1300 Pene-Krete). Ensure that the entire surface has adequate porosity.

Using a hand-held sprayer (do not pour S-1300 Pene-Krete directly onto the surface – use a sprayer only), completely saturate the surface with S-1300 Pene-Krete but do not allow to puddle. Evenly spread S-1300 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 product to penetrate. Immediately remove any slippery residue by rinsing with clean water and scrubbing with a stiff-bristled broom. S-1300 Pene-Krete must not be allowed to puddle on the surface.

FOR NEW CONCRETE (Less than 28 days)

Apply undiluted S-1300 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 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 S-1300 Pene-Krete by sprayer only to refusal. Remove any pooling by working the material into a more porous area. Allow 1 hour 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 S-1300 Pene-Krete by sprayer at 20 minute intervals. 1 hour after final application, saturate the surface with 3 applications of water by sprayer to drive product full depth.
3. Allow 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 S-1300 Pene-Krete does not penetrate the substrate, remove immediately with water wash.

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

Drying Time

S-1300 Pene-Krete penetrates in approximately 24 hours, influenced somewhat by temperature, humidity and job conditions. A floor treated with S-1300 Pene-Krete must be completely cure before accepting any coatings. Allow 24 hours before proceeding with application of coatings or sealers.

Cure Time

S-1300 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 S-1300 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 5 years when properly stored.

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

Non-toxic Water-based Yes
Yes

V.O.C. Content 0g / 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 S-1300 Pene-Krete will remain usable when stored in a tightly-sealed container.*

Flashpoint Non-flammable

Appearance Clear to hazy white
syrupey liquid

Viscosity 1000 cps. (max.)

Odor None or musty

Specific Gravity 1.134

pH 11.3

Percent Volatiles By 0

Volume

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.

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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 a Super-Krete Products representative for information and assistance locating approved contractors in your area or for training class dates.

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WARRANTY:

Arizona Polymer Flooring guarantees that this product is free from manufacturing defects and complies with our published specifications. In the event that the buyer proves that the goods received do not conform to these specifications or were defectively manufactured, the buyer's remedies shall be limited to either the return of the goods and repayment of the purchase price or replacement of the defective material at the option of the seller. ARIZONA POLYMER FLOORING MAKES NO OTHER WARRANTY, EXPRESSED OR IMPLIED, AND ALL WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE HEREBY DISCLAIMED. Arizona Polymer Flooring shall not be liable for damages caused by application of its products over concrete with excessive moisture vapor transmission or alkalinity. Arizona Polymer Flooring shall not be liable for any injury incurred in a slip and fall accident. Manufacturer or seller shall not be liable for prospective profits or consequential damages resulting from the use of this product.

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