

**DESCRIPTION:**

VaporSolve® Primer is a specially formulated water-based epoxy designed to provide superior adhesion over concrete with high levels of moisture vapor emissions. When used with the companion finish coat, 100% solids VaporSolve® 100, a coating system is achieved that reduces moisture vapor emissions to acceptable levels for all flooring and maintains its bond under continuously moist, alkaline conditions. VaporSolve Primer is also ideal over damp or green concrete. The product may be applied at temperatures between 40-100°F.

VaporSolve Primer is based on epoxy curing agent technology with more than 30 years of success as a concrete primer. It has been formulated with very low viscosity and surface tension to ensure excellent substrate wetting, penetration and adhesion. Laboratory testing has shown that VaporSolve Primer penetrates 25-30% deeper into concrete than low viscosity (250 cps) 100% solids epoxy. This exceptional penetration and adhesion gives VaporSolve Primer a distinct advantage over 100% solids epoxies when coating concrete that has interior contamination that cannot be detected without laboratory analysis. It is especially useful as a primer over silicate contaminated concrete and greatly reduces the chances of outgassing in applications over pourous concrete.

VaporSolve Primer is reacted with Bisphenol F epoxy rather than the standard Bisphenol A which results in more crosslinking and a tighter coating film. This means less moisture vapor transmission and better resistance to alkaline water at the bond line. The material contains no plasticizers, phenols or unreacted amines that could migrate out of the cured coating and trigger bond failure.

Together, VaporSolve Primer and VaporSolve 100 form the VaporSolve Ultra System which is designed to remediate all concrete moisture problems, regardless of severity. VaporSolve may be used in new construction settings when a schedule must be met, yet the concrete is not dry enough to allow for the installation of moisture sensitive flooring. It can be used over concrete with known moisture problems and over concrete that has been placed without a vapor retarder as a means of preventing future moisture problems.

**USES:**

- Primer for use with VaporSolve systems
- Primer for use over damp or green concrete

**CHEMICAL COMPOSITION:**

Modified Bisphenol F epoxy crosslinked with a water-soluble amine. System modified with a silane adhesion promoter.

**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.

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## SURFACE PREPARATION:

Surface must be absolutely free of grease, oil and other contaminants. Remove these contaminants by scrubbing S-12000 Heavy Duty Degreaser using a floor machine and nylogrit brush. When surface is clean and dry, shot blast using a 50/50 blend of 280/330 shot. Floor must be cross-hatched (North-South, East-West) double blasted to achieve a CSP 3-4 profile (texture similar to 60-80 grit sandpaper).

## JOINT FILLER:

Joint treatment may be done before or after the application of the coating. However joint preparation should be done as part of general surface preparation. Cracks wider than 1/16" should be routed out to 1/4 inch width. After shot-blasting and joint preparation have been completed, vacuum the entire surface thoroughly. Push the thickened VaporSolve Joint Filler into the joint with a putty knife or trowel until the material is flush with the surface. Material may also be put into a caulking gun and placed that way. Be sure the filler has been pushed as deeply as possible into the cracks and to the bottom of the joints. If filler sinks in the joint or crack, apply again to bring flush with the concrete. When application is made to control joints that have been cut 1/4" wide by 1/2" deep, the joint filler will cover approximately 154 ln. ft. per gallon.

Honor all moving joints and do not bridge with floor covering materials. When remediation is to be done under polymer flooring, mark all moving joints and recut after polymer flooring has been installed. Saw cuts must be a minimum of 1/4" wide and 1" deep. Product usage on this type of joint configuration will be approximately 76 ln. ft. per gallon.

## MIXING:

VaporSolve Primer is packaged in pre-measured 3/4 gallon and 3 gallon kits. **Do not attempt to mix partial kits. Proper proportioning and homogenization are absolutely critical for success.** Pour the entire contents of Part B into the Part A container. Drill mix for 1 full minute **by the clock**. If mixing a 3 gallon kit, add 1 gallon of water. If mixing a 3/4 gallon kit, add 1 quart of water. **Do not add water before the initial product mix.** Mix again for 1 full minute. Be sure to move the drill around the mixing container scraping the sidewalls and bottom.

## APPLICATION RECOMMENDATIONS & COVERAGE:

Pour material out of the pail within 5 minutes of mixing. If more than 5 minutes elapses, stir the material with a mixing stick to be sure that it is still homogenized. Spread the product with a flat trowel or squeegee to achieve the coverage rate of no less than 200 sq. ft. per gallon, excluding any water added. If mixing a 3 gallon kit, 1 extra gallon of water is added for viscosity reduction. This gives 4 gallons of liquid to be spread over the 600 sq. ft. (3 mixed gallons x 200 sq. ft. per gallon). The water added is not factored into the target coverage rate. Measuring off an area and mixing the appropriate amount of material for that area is helpful. A mechanic wearing spiked shoes must backroll the wet material to even out the distribution and work the product into the substrate. **The material must be rolled twice to achieve optimal substrate wetting.** Use a 3/4 inch nap roller cover. Should it be discovered that not enough product has been applied to a certain area, the mechanic with spiked shoes can pour additional product and distribute it with the roller. Finished dry film thickness will be 3.5-4.0 mils.

## APPLICATION OVER GREEN CONCRETE:

Concrete must be cured for 5 days and be shot blasted using a 50/50 blend of 230/280 shot. Floor shall be cross-hatched (North-South, East West) and double blasted to achieve a CSP 2-3 profile (texture similar to 80 grit sandpaper). Vacuum well to remove all dust. Apply two coats at 200 sq. ft. per gallon per coat.

*If quicker application is required, the **VaporSolve® Fresh Concrete System** can be applied 6 to 24 hours after final concrete placement.*

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VaporSolve® Primer 051916



**TECHNICAL INFORMATION:****Physical Properties**

Mixing Ratio, by Volume	Supplied in pre-measured kits only
Solids Contents (as received)	46%
Solids Contents (after water reduction)	34.5%
Viscosity (after water reduction)	25 cps
Volatile Organic Compounds	96 gms./ltr.
Pot Life (77 degrees)	2-3 hours

**Cure Times Regular Cure (77 degrees)**

Recoat with VaporSolve Joint Filler or VaporSolve 100	5-6 hours
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*\*The higher the temperature and the lower the humidity, the faster the cure. The lower the temperature and the higher the humidity, the slower the cure.*

**Performance Properties**

Surface Tension (dynes/cm)	20
Adhesion to damp concrete (ASTM D 4541)	500 psi-concrete fails
Permeability, ASTM E 96 (with VaporSolve 100 Top Coat)	Less than 1 pound/1,000 sq. ft./24 hours
Permeability/MVT, ASTM D 1308 (film exposed to 35% solutions of potassium hydroxide and sodium hydroxide for 60 days)	No visual change, 0.09% weight gain

**PRECAUTIONS:**

- **Handling Precautions:** Use only with adequate ventilation or appropriate cartridge type respirator. Avoid contact with skin, wear protective gloves. Read Safety Data Sheet before using.
- **Slip and Fall Precautions:** OSHA and the American Disabilities Act (ADA) have now set enforceable standards for slip-resistance on pedestrian surfaces. The current coefficient of friction required by ADA is .6 on level surfaces and .8 on ramps. Arizona Polymer Flooring recommends the use of angular slip-resistant aggregate in all coatings or flooring systems that may be exposed to wet, oily or greasy conditions. It is the contractor and end users' responsibility to provide a flooring system that meets current safety standards. Arizona Polymer Flooring or its sales agents will not be responsible for injury incurred in a slip and fall accident.

**SHELF LIFE:**

VaporSolve Primer has a shelf life of 1 year when properly stored in an unopened container. Material should be stored at 55°-90° and no greater than 50% humidity. Ensure all lids are tightly sealed to ensure the longest lasting shelf-life.

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**LIMITATIONS:**

- Concrete must be clean and have a CSP profile of 3-4 (texture similar to 60-80 grit sandpaper).
- Must be applied at specified film thickness.
- Concrete must remain sound for coating to stay permanently adhered.

**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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