



# SEAL KRETE® VAPOR SHELL MOISTURE VAPOR BARRIER

## DESCRIPTION AND USES

Seal Krete® Vapor Shell is a low viscosity, clear, one-coat, 100% Solids Epoxy, membrane-forming, moisture vapor control system formulated to bond to concrete with high (or excessive) relative humidity (RH). Seal Krete Vapor Shell is designed to reduce moisture vapor emission levels from 25 lbs./1000 sq. ft./24 hours to 3lbs./1000 sq. ft./24 hours or less. With a low permeance of 0.09 perms, Seal Krete Vapor Shell is an excellent moisture blocker for virtually all types of flooring, including low permeance flooring.

Ideally suited for priming in commercial, industrial, and institutional applications where moisture vapor control may be an issue.

## PRODUCT FEATURES AND BENEFITS

- Compliant with all state and federal VOC regulations
- Typical one coat application
- Excellent adhesion to moisture laden slabs
- Resistant to high PH
- Meets ASTM F3010 standard requirements

## PRODUCTS

| DESCRIPTION (Clear) | SKU      |
|---------------------|----------|
| 1 Gallon Kit        | SK245002 |
| 3 Gallon Side A*    | 337022   |
| 2 Gallon Side B*    | 337017   |

\*A Side Clear must be used with B Side Clear.

## RECOMMENDED TOPCOATS

- Poly-Shell 7000
- Poly-Shell 8000
- Epoxy-Shell 1000 EPL
- Performance Epoxy
- Dura-Shell WB
- Flex-Coat
- Clear-Shell TX

## PRODUCT APPLICATION

### READ ALL INSTRUCTIONS CAREFULLY BEFORE STARTING PROJECT

#### CONCRETE REPAIR

All spalls and cracks must be chased out and repaired to ICRI standards using appropriate patching material. For floors with very high moisture levels, cracks should be repaired with a mix of VaporShell and Cab-O-Sil® fumed silica to create a paste and applied by trowel or putty knife.

## PRODUCT APPLICATION (cont.)

### SURFACE PREPARATION

New concrete must be allowed to cure for a minimum of 14 days before application of the Seal Krete Vapor Shell. All concrete surfaces must be free of all dirt, grease, oil, fats, and other contamination. Remove surface contamination by cleaning with Rust-Oleum® Professional Cleaner/Degreaser, detergent, or other suitable cleaner.

After the concrete surface has been cleaned and visibly dry at the time of application, the concrete must be further prepared. The concrete surface texture must be comparable to ICRI CSP Level 3 for moderate environments or Level 5 for severe environments. Contact Rust-Oleum Technical Service Department for more detailed information.

### MIXING

Both components and environment should be preconditioned to a minimum of 60°F (15°C) prior to use. Hand mixing is not adequate. You must combine the base and activator by power mixing using either a 3" Jiffler Mixer or Hanson Plunge Mixer. Mix at 500-750 rpm for 1-3 minutes. Do not over mix or use higher speeds. This can introduce air into the coating causing small bubbles in the finish.

Start mixing the Base component in the short filled 5-gallon pail then add in the two gallons of Activator while maintaining mixing. It is very important to transfer as much activator as possible. Mix the two components together for 1-3 minutes, being careful not to pull air into the mixture. Do not mix more material than what can be applied within 25 minutes of mixing.

If mixing less than the premeasured amounts, mix each component separately before accurately measuring out material. Use a 3:2 (base to activator) by volume mixing ratio and mix thoroughly.

### TINTING (Clear)

Pre-mix Universal Tint Packs prior to adding into floor coatings. Add Universal Tint Packs at 8 oz. per gallon of mixed floor coating material and combine thoroughly via power mix to achieve uniform colorant dispersal.

**NOTE:** Some colors, including safety colors, may require additional coats if desired coverage is not achieved in the first application.

### EQUIPMENT RECOMMENDATIONS

**SQUEEGEE:** Use a high quality ¼ inch notched rubber squeegee.

**ROLLER:** Use a high quality ¾ inch lint-free roller with a phenolic core.

**BRUSH:** Use a disposable natural fiber chip brush, 2-4 inch wide for cut in work.



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## PRODUCT APPLICATION (cont.)

### APPLICATION

Apply only when air, material and floor temperatures are between 60-80°F (15-27°C) and surface temperature is at least 5°F (3°C) above the dew point. Do not apply in direct sunlight or when temperature is rising. Immediately after mixing, pour the material onto the floor in a long, 8- to 12-inch-wide stripe.

Seal Krete Vapor Shell is to be applied at a minimum thickness of 16 mils. Seal Krete Vapor Shell when applied at a minimum of 16 mils thickness will reduce vapor emission rate up to 25 lbs./1,000 sq. ft./24 hour and maximum RH of 99%. To ensure proper coverage, periodically check mil thickness using a wet film thickness gauge. Vapor Shell that is tinted or broadcast into (i.e., chips, quartz, silica, etc.) will not have the same moisture blocking properties. Contact Rust-Oleum Technical Service Department for more information.

**NOTE:** Do not try to work out of a pan or container, as the build-up of heat could shorten the pot life and create a hazardous condition. Do not scrape the sides or bottom of the container. Use only the material that flows naturally out of the container. Also, do not turn the container upside down and leave on the floor to drain. Doing so may result with unactivated material from the sidewall of the container being applied. This will cause soft spots in the coating.

Use a ¼ inch notched squeegee to spread the material out and achieve the 80-100 square feet per gallon spread rate. Back roll the material smooth using a ¾ inch lint free roller with a phenolic core. If needed, a spiked roller can be used to release any entrapped air in the coating.

Vapor Shell should be allowed to flow down into saw cuts but not allowed to fill the saw cut. Allow to cure for a minimum of 24 hours before the placement of backer rod and a suitable polyurethane sealant. All expansion joints must be honored.

### COVERAGE

One activated gallon of Vapor Shell will cover 80-100 square feet. The full 5-gallon kit will cover 400-500 square feet. This spread rate must be honored to ensure the primer properly performs.

**THINNING:** Not required.

**CLEAN-UP:** Acetone

## PERFORMANCE CHARACTERISTICS

### COMPRESSIVE STRENGTH

METHOD: ASTM D695

TYPICAL VALUE: 15,225 psi

### TENSILE STRENGTH

METHOD: ASTM D638

TYPICAL VALUE: 10,000 psi

### FILM HARDNESS, SHORE D

METHOD: ASTM D2240

TYPICAL VALUE: 85

### FLEXURAL STRENGTH

METHOD: ASTM D790 @ 2 hours

TYPICAL VALUE: 16,100 psi

### PERMEANCE

METHOD: ASTM E96

TYPICAL VALUE: 0.09 perms (grains/h/sq.ft./in. Hg)

|   |   |
|---|---|
|   | <b>TECHNICAL DATA</b> <b>SKHP-03</b>                            |
|  | <b>SEAL KRETE® VAPOR SHELL</b><br><b>MOISTURE VAPOR BARRIER</b> |

**PHYSICAL PROPERTIES**

|                                   | VAPOR SHELL   |
|-----------------------------------|---|
| <b>Resin Type</b>                 | Amidoamine Converted Epoxy  |
| <b>Weight*</b>                    | <b>Per Gallon</b> 9.1 lbs.  |
|                                   | <b>Per Liter</b> 1.1 kg/l   |
| <b>Solids by Volume</b>           | 100%  |
| <b>Volatile Organic Compounds</b> | 0 g/l   |
| <b>Mixing Ratio</b>               | 3:2 (Base to Activator by volume)   |
| <b>Induction Time</b>             | None required   |
| <b>Working Time</b>               | 25 minutes @ 77°F (25°C)  |
| <b>Practical Coverage</b>         | 80-100 sq. ft./gal.<br>Coverage rate can vary depending on the texture and porosity of the concrete |
| <b>Recoat/Topcoat</b>             | 12-14 hours. Scuff sanding is required if greater than 24 hours                                     |
| <b>Shelf Life</b>                 | 5 years   |
| <b>CAUTION</b>                    | Protect from freezing   |
| <b>Safety Information</b>         | For additional information see SDS  |

Calculated values are shown and may vary slightly from the actual manufactured material.

\*Activated material

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