



Vapor-Shell™

MOISTURE VAPOR BARRIER

PRODUCT DESCRIPTION

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 3 lbs./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.

FEATURES AND BENEFITS:

- Reduces moisture levels from 25 lbs./1000 sq. ft. to 3 lbs./1000 sq. ft./24 hours or less and RH of 100% or less.
- Compliant with all state and federal VOC regulations
- Typical one coat application
- Excellent Adhesion
- Resistant to high pH
- Bonds to 7 day old concrete
- Available in:
 - Clear 1 Gallon Kit, Item #245002

APPROVED TOPCOATS:

- Epoxy-Shell WB 250
- Epoxy-Shell WB 50
- Poly-Shell 1000
- Poly-Shell 7000
- Epoxy-Shell 1000
- Dura-Shell WB

RECOMMENDED USES:

Ideally suited for priming in commercial, industrial and institutional applications where Moisture Vapor Control may be an issue.

- Aircraft hangars
- Chemical and waste treatment plants
- Detention facilities
- Hospitals
- Manufacturing plants
- Warehouses
- Metal finishing and power generation facilities

Important: Read all directions thoroughly.

SURFACE PREP*

Seal-Krete recommends testing the moisture condition of the substrate. Two commonly used tests to determine water vapor condition of concrete floors are the anhydrous calcium chloride moisture vapor emission rate test (ASTM F1869) and the in-situ relative humidity probe test (RH probe test, ASTM F2170).

All concrete surfaces that are going to be coated with Seal-Krete Vapor-shell must be mechanically prepared to an ICRI Concrete Surface Profile (CSP) of 3. The preferred method to achieve this is shot blasting. Acid etching is not permitted. Upon completion of shot blasting, the concrete slab must be vacuumed free of all dust, dirt, and debris prior to Seal-Krete Vapor-Shell installation.

APPLICATION

MIXING INSTRUCTIONS: Open both Part A and Part B. Pour Part B container into Part A container. Use a low speed electric mixer and “Jiffy-type” mixing paddle to mix the material for 3 minutes. Components A and B are mixed at a ratio of 3:2 by volume.

Immediately pour the mixed material onto the floor in a long, 8 to 12 inch wipe stripe. Leaving the material in the container will reduce working time and pot life.

Refer to Application Guide or visit hp.seal-krete.com for detailed application instructions.

APPLICATION INSTRUCTIONS: Apply Seal-Krete Vapor-Shell at substrate and ambient temperatures between 50°F and 90°F. Seal-Krete Vapor-Shell is applied in one coat using a notched squeegee and 3/8” in nap epoxy-rated roller. Spread the material to the appropriate coverage rate of 16 mils using a notched squeegee. Immediately back roll with a 3/8” in epoxy rated roller preferable at a right angle to the direction of the squeegee application, evenly distributing the product across the entire area. Then immediately back roll with a spiked roller to help release entrapped air created from the mixing or application process.

When Seal-Krete Vapor-Shell is applied to the concrete surface, it may flow into voids that are connected to the surface. Air is displaced out of these voids as the coating flows in, resulting in “out gassing.” If excessive surface voids, pin holes, or bubbles are encountered, contact the Seal-Krete technical team before proceeding.

Clean mixing and application equipment immediately after use. Use an active solvent like Xylene (SCAQMD use acetone only).

DRYING TIME: Minimum recoat time is 8 hrs. Maximum recoat time 24 hrs.

(Sanding is required to promote intercoat adhesion if not top coated within 24 hrs)

LEAN-UP: Clean tools and application equipment immediately after use

STORAGE: Store and transport in unopened containers in a clean, dry area at stable temperatures approximating 60 to 73°F (15 to 22.5°C).

SHELF LIFE: Part A: 2 years - Part B: 2 years

KEEP FROM FREEZING: Store in a cool, well ventilated area above freezing.

DISPOSAL: Collect with absorbent material. Dispose of in accordance with current local, state and federal regulations.

- For interior use only
- Do Not apply to wet surfaces (no visible water)
- Surface must be properly cleaned and prepared prior to application
- Do not thin
- Do not broadcast into this coating, as it will affect permeance
- Do not apply less than 16 mils
- Concrete should be a minimum of 2500 psi.

CAUTION: KEEP OUT OF REACH OF CHILDREN. Avoid contact with skin. If splashed in the eyes, remove contact lenses, if worn. Flush eyes with clean water. If irritation occurs get medical attention. If swallowed, DO NOT induce vomiting. Take immediately to hospital or physician. **For more information refer to Safety Data Sheet.**

* Sanding or removing paint containing lead may be hazardous. For information contact the National Lead Information Center at 1-800-424-LEAD or www.epa.gov/lead.



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MATERIAL PROPERTIES AT 77°F

Compressive Strength (ASTM D-695)	15,225 psi
Tensile Strength (ASTM D-638)	10,000 psi
Flexural Strength (ASTM D-790) 2 hours	16,100 psi
Permeance (ASTM E-96)	0.09 perms (grains/h/sq.ft./in. Hg)
Shore D Hardness (ASTM D-2240)	85
Pot Life @ 77°F	Aprox. 20-25 min. (Apply material to floor immediately after mixing)
Cure Time @ 77°F	Approx. 8-12 hours (depending on substrate and ambient temperature)
VOC, Mixed	< 10 g/L
Recommended Coverage	100 sq.ft./gal @ 16 mils
Flash Point	> 200 °F
Recoat Time (min/max)	8 hrs / 24 hrs
Light Foot Traffic	12 hours
Vehicular Traffic (hours)	24 hours

USDA and FDA certified food safe for incidental food contact.

CHEMICAL RESISTANCE ASTM D-1308

Acetic Acid	Y	Methylene Chloride	N
Acetone	N	Mineral Spirits	S
Ammonia 30%	Y	Motor Oil	Y
Ammonium Hydroxide 30%	Y	Mustard	N
Animal Urine	S	Nitric Acid 20%	S
Antifreeze	Y	Nitric Acid 40%	N
Benzyl Alcohol	S	Orange Juice	Y
Brake Fluid	Y	Phosphoric Acid 10%	Y
Calcium Hypochlorite (Chlorine)	Y	Phosphoric Acid 30%	S
Chromic Acid 10%	Y	Phosphoric Acid 50%	S
Citric Acid 10%	Y	PM Solvent	Y
Clorox	Y	Silver Nitrate 20%	Y
Ethyl Acetate	N	Skydrol	S
Gasoline	Y	Sodium Hydroxide 50% (Caustic Soda)	Y
Glycol Ether	N	Sodium Hypochlorite 15% (Bleach)	Y
Hydraulic Fluids	N	Sodium Hypochlorite 50% (Bleach)	N
Hydrochloric Acid 35%	Y	Sulfuric Acid 10% (Battery Acid)	Y
Hydrofluoric Acid 40%	N	Sulfuric Acid 50% (Battery Acid)	Y
Hydrogen Peroxide 30%	S	Toluene	N
Iodine 2%	Y	Trichloroethylene (1,1,1)	S
MEK	N	Trichloroethylene	N
Methanol	N	Windshield Wiper Fluid	Y
Methyl Cellosolve	N	Xylene	S

Key: Y = RESISTANT S = SPLASH & SPILL N = NOT RECOMMENDED

COVERAGE GUIDE

MVER / RH	mil thickness	sq.ft. / gal
≤ 28 lbs. / 100%	16 - 20	80 - 100

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 hr and maximum RH of 100%. To insure proper coverage, periodically check mil thickness using a Wet Film Thickness Gauge.

Coverage rates are approximate and for estimating purposes only. Surface temperature, porosity, texture and thickness will determine actual material requirements.
*A larger notched squeegee can be used for a smoother surface.

WARRANTY: Conditional warranty of 1 -2 years available. Contact SEAL-KRETE Technical Service. SEAL-KRETE warrants this product will be free of defects at time of use or within products shelf life.

TECHNICAL SUPPORT: For more information on surface prep or application guidelines, or to obtain a Material Safety Data Sheet, call 1-800-323-7357, M-F (8:00 am–5:00 pm EST) or visit our website at hp.seal-krete.com.

Country of Origin: U.S.A.