

# VAPOR BARRIER EPOXY

## TECHNICAL DATA SHEET



VAPOR BARRIER EPOXY (VBE) IS A BPA-FREE MOISTURE MITIGATION PRIMER ENGINEERED TO BOND TO CONCRETE WITH ELEVATED HUMIDITY LEVELS AS HIGH AS 99%. Available in clear or pigmented form, VBE is designed to effectively reduce moisture vapor emission levels of up to 25lbs./1000sq. ft./24hours. It has been formulated for rapid return to service and dries within 4-6 hours following application.

### USES:

- » Primer for Damp Concrete
- » Low-Odor Applications
- » Green (new) Concrete
- » Commercial Underlayments
- » Resinous Flooring Primer

### ADVANTAGES:

- » **BPA-Free**
- » Resistant to High PH
- » Low Odor , 0 VOC
- » Fast 4-6 hour dry time
- » Easy to use 2:1 mix ratio
- » Excellent adhesion

### MIX RATIO:

#### Clear & Pigmented:

- » 2 Parts A to 1 Part B by Volume

### PACKAGING & SHELF-LIFE

#### Epoxy Vapor Barrier is available in the following Units:

- » 3-gallon Kits (2-gallons part-A in 3.5-gallon pail + 1-gallon part-B)

### SUGGESTED APPLICATION:

#### Suitable Substrate(s):

- » Concrete: Apply at 12-20 mil thickness to properly profiled concrete. Please see page 2 for detailed application instructions

### ANCILLARY PRODUCTS:

Vapor Barrier Epoxy may be used as a primer / base coat in conjunction with any other Resinwerks resinous coating product(s).

### MATERIAL COVERAGE RECOMMENDATIONS

per ASTM F-1869 (CaCl) & F-2170 OR F-2420 (relative humidity).

MVER: LBS. PER 1000FT <sup>2</sup> * 24HRS	RH: BY %	THICKNESS	COVERAGE
10-15 lbs.	85-89.99%	12 mils	130 ft <sup>2</sup> / gallon (3.2m <sup>2</sup> /L)
15-20 lbs. (clear only)	90-94.99%	16-mils	100 ft <sup>2</sup> / gallon (2.4m <sup>2</sup> /L)
20-25 lbs. (clear only)	95-99.99%	20-mils	80 ft <sup>2</sup> / gallon (2.4m <sup>2</sup> /L)

- » Due to variation in surface profile, specifiers are encouraged to increase thickness to accommodate for lack of substrate uniformity.

### GENERAL PRODUCT INFORMATION

- Colors:** Clear & pre-pigmented std colors
- Solids Volume:** 100%
- V.O.C.:** 0 grams per liter
- Pot-life:** 30 Minutes @ 70° F
- Cure Schedule:** 70° F @ 50% humidity.
  - To touch: 3-4 hours
  - To re-coat: 4-5 Hours Minimum  
24 Hours Maximum
- Foot Traffic:** 4-6 Hours
- Heavy Traffic:** 10-12 Hours
- Reducer:** Not recommended
- Application Temp:** 60°F(15.6°C) - 90°F(32.2°C)
- Environment:** For Interior Use Only
- Shelf Life:** 24-months factory sealed

### GENERAL PRODUCT PERFORMANCE

TEST TYPE	TEST METHOD	RESULT
Compressive Strength	ASTMC 695	11,000 PSI
Permeability	ASTME 96	0.059 PERMS (grains h-1 ft-2 in Hg-1)
Water Absorption	ASTMD570	< .1%
Impact Resistance	ASTMD 2794	> 160
Adhesion/Pull-Off	ASTMD-4541	+500 PSI concrete fracture
Elongation / Tensile Strength	ASTM D638	2500 psi
Flexibility 1/4" cylindrical mandrel	ASTMD 522	Pass
Hardness / Shore D	ASTMD 2240	75

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### SKUs:

- 100-0000-02-A: Clear Part A
- 100-\_\_\_\_\_-02-A: Clear Part A
- 100-0000-01-B: Part B

### SURFACE PREPARATION

Ensure substrate to be coated is clean, dry, and in sound condition. All laitance, curing compounds, concrete hardeners, and other surface contaminants must be removed. Prepare concrete in accordance with ASTM D 4259-83. Mechanical Shot Blasting is recommended to achieve a surface profile of ICRI CSP 3-5. Surface to be coated must be completely porous and free of excessive dust & contaminants.

### MOISTURE IN CONCRETE

Concrete slabs should be tested prior to application for elevated moisture vapor emission levels. Resinwerks recommends ASTM F2170-19 standard for determining relative humidity in concrete slabs using RH probes. Moisture level results will determine recommended mil thickness for application. For more information, please contact your Resinwerks technical representative.

### DE-GREASING OF CONTAMINATED SUBSTRATES

For concrete substrates containing oil, animal fats, or other carbon based contaminants, slabs should be de-greased appropriately using an enzymatic based concrete de-greasing agent. Multiple applications may be required depending on the level of contamination. For more information, please contact your Resinwerks technical representative.

### TREATMENT OF JOINTS & CRACKS

Prior to installation of any Resinwerks primer, all joints, cracks and other substrate irregularities must be addressed. For more information on specific joint treatment procedures, please contact your Resinwerks technical services representative.

### MIXING INSTRUCTIONS

- » **ALWAYS MIX IN METAL BUCKETS**
- » Prior to mixing, all products should be properly acclimated to the local ambient room temperature of 60°F(15.6°C) - 90°F(32.2°C). Thoroughly agitate part A prior to mixing. Mix 2-parts A to 1-Part B by volume for two minutes using a slow speed jiffy mixer.

### APPLICATION INSTRUCTIONS

- » Immediately following mixing, pour onto substrate in a uniform ribbon and spread evenly with a notched squeegee depending on desired thickness. Immediately back-roll with 3/8" (9 mm) nap non-shedding roller to help ensure full coverage and uniform thickness. Use a brush or small roller to cut-in along perimeter walls or any other obstructions. Depending on ambient environmental and slab temperatures, material will be dry to the touch and ready for subsequent applications within approximately 4-6 hours following application. Contact

Resinwerks directly for additional application specifics and recommendations.

### LIMITATIONS

- » Intended for use as a primer only; may amber when exposed to UV
- » Do not apply over concrete experiencing ASR
- » Do not apply to new slabs < 7-days old
- » Do not apply to concrete < 3500 PSI compression strength
- » Do not apply product when ambient or room temperature is below 60°F or over 90°F or if the relative ambient humidity is above 85%.
- » This product is not recommended for immersion service.
- » DEW POINT: Do not apply when dew point is within 5°F of the ambient temperature.

### MAINTENANCE

The long-term performance, appearance, and life expectancy of wear surface products are dependent on an adequate routine maintenance program designed specifically for the installed wear surface. Resinous floor coating systems are nonporous, causing dirt and contaminants to remain on the surface. Recommended maintenance programs consist of frequent and thorough cleaning utilizing a neutral PH cleaner. The frequency of washing will vary depending on floor usage type, traffic and age. Please contact your local Resinwerks technical representative for more information.

### NOTES

Thoroughly read all Material Safety Data Sheets prior to use and maintain copies on job-site at all times.

Mock-ups and field test areas are strongly recommended in order to validate performance and appearance related characteristics (including but not limited to color, inherent surface variations, wear, anti dusting, abrasion resistance, chemical resistance, stain resistance, coefficient of friction, etc.) to ensure system performance as specified for the intended use, and to determine approval of the coating system.

Variability in job site conditions (including but not limited to surface preparation, sunlight, humidity, dew point, temperature, etc.) during application of Epoxy products may lead to fish-eyes, blistering, pinholes, wrinkling, or out-gassing of air in the concrete and are not product defects.

### TECHNICAL ASSISTANCE

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