

TD.468 – TECHNICAL DATA: E100-VB5™ Epoxy Vapor Barrier

Revised: 11/7/2023 Version: 1.8

Product Class: An epoxy vapor barrier for concrete surfaces that are to be top coated with an epoxy coating.

Description: E100-VB5™ is a high-solids, low viscosity, moisture insensitive, three-component epoxy primer system designed to eliminate outgassing from concrete substrates and seal out moisture vapor. Outperforms industry standard solvent-based primers. E100-VB5™ is formulated to penetrate the capillaries of concrete and fill pores within the surface structure, has excellent adhesion to the aggregate, and cures under dry conditions.

Typical Uses:

- **REFLECTOR™ Enhancer Flooring Systems:** As the epoxy vapor barrier.
- **HERMETIC™ Neat Floor:** As the epoxy vapor barrier.
- **HERMETIC™ Flake Floor:** As the epoxy vapor barrier.
- **HERMETIC™ Color Quartz Floor:** As the epoxy vapor barrier.
- **HERMETIC™ Stout Floor:** As the epoxy vapor barrier.
- **HERMETIC™ Paramount Floor:** As the epoxy vapor barrier.
- **HERMETIC™ Paramount Heavy Duty:** As the epoxy vapor barrier.

Key Features:

- Slows hydration in new concrete, increasing strength
- Eliminate outgassing bubbles in top coats
- Seals out moisture intrusion
- Low to no odor
- VOC free
- Air releasing
- Priming green concrete surfaces (7 days depending on conditions).
- Excellent impact and chemical resistance
- Fast cure rate
- Excellent strength properties
- Meets USDA, FDA, and CFIA standards
- Protects against vapor transmission and rising damp

Product Properties: Material and curing conditions at 75°F/ 23°C unless noted, 50% R.H.

- Color: Amber/Green
- Viscosity @ 75° F / 23° C
 - Part A: 900 cps
 - Part B: 1000 cps
 - Mixed: 300 cps (with water added)
- Pot life: 25 minutes
- Tack free: 4 to 6 hours
- Recoat or top coat: 6 to 8 hours

Physical Properties

(@77°F / 24° C, 7-day ambient cure)

Solids by volume	58%	
Volatile organic content	0% (0 g/L)	
Recommended thickness	5-8 mils (3-6 mils dry)	
Abrasion resistance		
Taber Abrasion		
CS-17 wheel with 1000 gm. load	ASTM D4060	45 mg loss
Impact resistance		
Gardner impact direct	ASTM D5420	50 in. lb. (passed)
Bond strength	ASTM D4541	Substrate Failure 450 psi
Perm rating	ASTM E96	> 0.2
Reaction to fire	EN 13501-1:2018	BFL – s1

Chemical Resistance

Splash & Spill Immediate Cleanup

Water (fresh and salt)	Butanol
10% Sodium Hydroxide	Xylene
10% Sulfuric Acid	111 Trichloroethane
10% HCL	Gasoline

Mix ratio:

- Mix 1 Part A and 1 Part B by volume thoroughly for 2 minutes with slow speed drill and mixing paddle. **Then add 32 oz. / 1 L of clean potable water to each mixed gallon / 4 L.** Applicator must first mix Part A and Part B before adding the water.

Limitations:

- Not for use on exterior concrete.
- Not intended as a wear coat.
- Two coats may be required for more porous substrates.
- Subject to UV degradation when exposed to direct sunlight for long period of time.
- Not recommended for surfaces subject to continuous water submersion.

Coverage:

- Concrete surface profile (CSP) of 3: Light shot blast: 250 to 300 sq. feet / 23.2 to 27.8 sq. meters per gallon / 4 L.

Cautions, Clean Up, and First Aid:

- Although E100-VB5™ has little or no odor and carriers zero VOC, it should only be used with adequate ventilation. Avoid contact with eyes and skin. **DO NOT TAKE INTERNALLY. KEEP OUT OF REACH OF CHILDREN.** Ensure fresh air entry during application. If you experience watering eyes, headaches, or dizziness or if air monitoring demonstrates vapor levels are above applicable limits, wear a properly fitted respirator (NIOSH/MSHA TC 23C approved) during and after application. Follow respirator manufacturer's directions for use. E100-VB5™ is an irritant which can develop redness of skin and allergic reaction. Always use protective clothing, gloves and eye wear.
- Refer to SDS.447 for additional information before use.

Additional Notes:

- See document: *TD.200 – Resinous Flooring Guidelines* for information pertaining to rising damp, vapor transmission and applicable recommended testing methods prior to use.

Available Packaging:

- 2 and 10 gallon kits

Suggested Storage:

- Store in a temperature and weather-controlled area between 65° F / 18° C and 85° F / 29° C.
- Do not allow to freeze.
- Shelf Life - 1 year from date of manufacture.