URECO® FLOORING SYSTEMS

BEYOND FLOORS…

TECHNICAL DATA SHEET
EPOXY SERIE

URECO MVB

MOISTURE VAPOR BARRIER

TDSMVBEN.V01

PRODUCT DESCRIPTION

Ureco MVB is a two-component, 100% solids epoxy moisture barrier designed to reduce moisture vapor emission rates up to 20 lb/24 hr/1000 ft². It is applied before the installation of vinyl sheets, tiles, cementitious toppings, terrazzo, wood veneers, carpets, or polymeric coatings. When applied at the recommended thickness, it complies with ASTM F3010 standards for vapor transmission.

IDEAL APPLICATIONS:

Specifically formulated for interior horizontal concrete surfaces

BENEFITS

- VOC Compliant
- 100% solids
- Can be used in a variety of flooring systems.
- Can help alleviate some of the issues associated with moisture vapor in concrete.
- Help control moisture vapor emission rates up to 20 lb/24hr/1000 ft2
- Meets the ASTM F3010 product requirements for vapor permeance
- Easy to apply, one coat
- Can be applied on to 10 days old concrete
- Can be used to Superior Adhesion

COLOR

Clear

TYPICAL USES

- Suitable for interior concrete floors before applying coatings or coverings
- Recommended for industrial and commercial flooring systems to prevent moisture-related failures
- Ideal for basements and ground-level slabs to control moisture migration
- Used in warehouses, factories, and production areas beneath resinous or epoxy flooring
- Applied in institutional buildings (hospitals, schools, labs) before final finishes
- Suitable for retail and office spaces under decorative or functional flooring
- Use wherever moisture vapor emissions may compromise floor performance.

TECHNICAL INFORMATION

Color	Clear
Cure Time @ 21°C (70°F) Tack free (dry to touch) Recoat Full cure	 6-10 hours 12-16 hours 3-7 days at 21°C
Mix Ratio (by volume)	2 component kit 2 Part A (resin) 1 Part B (hardener)
Coverage	18 mils (89 sqft/gal)
Application temperature	15-22°C (60-90°F) with relative humidity below 90%
Pot Life @ 21°C (70°F)	25-35 minutes
Solid by weight	100
VOC Content	< 0g/L

PHYSICAL PROPERTY	TEST METHOD	RESULT
Adhesion to concrete	> 350 psi (concrete failure , no delamination)	
Hardness (Shore D)	ASTM D-2240	75-80
Water vapor permeance	ASTME E96	< 0.1 perm
Water vapor transmission reduction (ASTM F1869) >95%	ASTM F1869	>95%

- Pot life is shorter at higher temperature.

Before using any URECO product, be sure the Safety Data Sheet (SDS) is read and understood.

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PACKAGING

URECO MVB is available in 3 gallons / kit. All kits containing 2 part A of resin and 1 part B hardener.

SURFACE PREPARATION

See the **Important application consideration** and **limitations** section on the technical data sheet prior to preparation. All contaminants — dirt, oils, sealers, adhesives, curing agents, laitance, or other bond-inhibiting materials — must be removed. Level surface irregularities and fill static cracks or joints after preparation. Cracks may require widening and priming before filling with a thickened mix of the vapor barrier. Shot blasting to a minimum CSP #3 is recommended to ensure proper surface profile. Allow 16–24 hours drying time post-preparation. Call the Technical Department for preparation recommendation.

PRIMER

None recommended

TOPCOAT

Ureco GTC

MIXING

Pre-mix each component separately before using. Empty 1 part of component B with two parts component A, (mixing ratio 2 for 1) into an appropriate mixing container. Mix the combined components for at least 2-3 minutes using a low-speed drill (300-450 rpm) to minimize entrapping air in the system. After mixing, transfer the mixed material to another pail (the transfer pail) and again remix before applying to the concrete substrate. When completely mixed, the product should be uniform in color and consistency. Improper mixing may result in product failure. Standard kits are pre-measured and must be mixed entirely as provided.

APPLICATION

URECO MVB can be applied with a brush or roller. This product can also be applied with a serrated squeegee and then back rolled as long as the appropriate thickness recommendations are maintained. When rolling out the product, it is best to roll out the product in one direction and then back roll the material in the opposite direction to make sure it is worked into the concrete well.

If excessive air is introduced due to concrete conditions or aggressive mixing, use an air release roller before the coating begins to tack to eliminate trapped air. When applied, outgassing may cause pinholes or voids as air escapes from the substrate. If this occurs, sand and clean affected areas thoroughly, ensure they are dry, and reapply the coating. For persistent pinholes or voids that reapplication cannot fix, fill them with a paste made from the mixed vapor barrier and a thickening agent before recoating. The moisture barrier must be applied as a continuous, seamless layer free of voids. Applying thinner coats than specified may compromise moisture protection. Regarding the moisture vapor barrier, ensure no coatings, overlays, or other finishes are applied until the product has fully cured — typically within 12 to 16 hours at 70°F. Note that lower temperatures or a cold substrate may extend the required curing time. As a guideline, the coating is considered sufficiently cured when a firm press with your thumb leaves no impression. The maximum allowable recoat window is 24 hours.

CLEANING

Use Xylol

STORAGE CONDITIONS

URECO MVB should be stored in a cool, dry area between 15°C and 21°C (59°F to 70°F). Protect from freezing. The product has a shelf life of 12 months from the shipping date, provided it remains in its original, unopened container. Keep away from open flames or ignition sources.

IMPORTANT APPLICATION CONSIDERATION

Do not apply over gypsum-based products or lightweight concrete. Substrates must comply with ACI 201 guidelines for durable concrete. Surface must pass ASTM F3191 Water Drop Test., and be 100% free on any contaminates that could cause or contribute to a flooring system failure. Confirm moisture levels before application: use ASTM F1869 (max 20 lb/24 hr/1000 ft²) or ASTM F2170 (75%–95% RH). ASTM F1869 is valid only if HVAC has run continuously for at least one week prior and during testing. Perform one moisture test per 1000 ft². A 100 ft² mock-up with adhesion testing (ASTM D7234, ≥ 200 psi with concrete failure) is advised before full installation. Projects over 5,000 ft² may require additional testing for substrate analysis. Coat joint edges with the membrane before installing expansion joint materials. All moving joints must be honored throughout the system and sealed with compatible elastomeric products. Improper surface prep may lead to adhesion failure or defects. Limit floor use to light traffic and avoid exposure to harsh chemicals until the coating reaches full cure (refer to technical data for curing times). Ideally, keep the floor dry throughout the curing process. Depending on the complete system used, the surface may become slippery — particularly when wet or soiled — so maintain it clean and dry at all times.

LIMITATIONS

Substrate must be clean, sound and dry. Avoiding condensation during application is critical. To prevent moisture buildup, ensure the concrete surface temperature is at least 3°C (5°F) above the ambient dew point — and increasing. For example, if the dew point is 18°C (65°F), the concrete must be at least 21°C (70°F) and warming, to stay safely above the condensation point.Do not apply to surfaces

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where moisture vapor can condense and freeze or to porous surfaces where moisture vapor transmission will occur during the application. Do not apply in areas where the humidity is greater than 90%. Freshly applied material should be protected from dampness, condensation and water for at least 24 hours. All new concrete must be cured for at least 10 days prior to application with a minimum compressive strength of 3,500 psi and a minimum tensile strength of 200 psi. * Testing must be performed to confirm a moisture vapor emission rate below 20 lb/24hr/1000 ft^2 per ASTM F1869 or between 75% and 95% for ASTM F2170. Product is not suitable for preventing hydrostatic or osmotic water conditions. *Manufacturer is not responsible for entrapped moisture and/or water underneath applied coatings with a low rate of water vapor transmission which can deteriorate concrete resulting in a cohesive failure within the concrete surface. *Manufacturer is not responsible for failures caused by cracks and pin holes or damage caused by use. Cracks and joints are not covered by any warranty. *slabs must be at least 4" thick with a functioning vapor barrier. *Manufacturer does not warrant penetration and bond where cores are not tested unless and until project owner submits cores and lab establishes that no impediment to bond or penetration is or was present. *Physical properties are typical values and not specifications. If you have any questions, please contact the PowerBlast Canada Technical Services at 1-866-975-1133

CAUTION

Workers should wear protective clothing consisting of splash-proof goggles, impermeable gloves and, where exposure limits are exceeded, organic vapor respirators. Follow the Safety Data Sheet (SDS) for proper personal protective equipment to use when handling this product. Use only as directed.

KEEP OUT OF REACH OF CHILDREN.

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