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MVB 49 TM - TECHNICAL DATA SHEET (TDS)

100% Solids High-Alkalinity Moisture Vapor Barrier Epoxy Primer | Document Rev: 2026.11

MIX RATIO (A:B)	MOISTURE RATING	PERMEANCE (F3010)	RECOAT WINDOW
2A : 1B by Volume	**Up to 25 lbs MVER / 99% RH**	**< 0.1 Perms @ 16 Mils**	**4-24 Hours @ 72 deg F**

1. PRODUCT DESCRIPTION & COMMERCIAL USE

MVB 49 is a single-coat, 100% solids modified polyamine epoxy moisture mitigation primer engineered to remediate concrete slabs with elevated hydrostatic vapor pressure up to 25 lbs/1,000 sq ft/24 hrs (ASTM F1869) and 99% internal relative humidity (ASTM F2170). Forms a tenacious chemical and mechanical vapor lock exceeding ASTM F3010 requirements.

2. ASTM PHYSICAL & PERFORMANCE PROPERTIES (TESTED @ 72 deg F / 50% RH)

PROPERTY	TEST METHOD	TYPICAL VALUE / SPECIFICATION
Volume Solids Content	ASTM D2697	**100% Solids (Zero VOC)**
VOC Content	EPA Method 24	**< 5 g/L**
Mix Ratio (Part A : Part B)	By Volume	**2 Parts A : 1 Part B by Volume**
Water Vapor Permeance @ 16 Mils	ASTM E96 / ASTM F3010	**< 0.08 Grains / hr / sq ft / in.Hg (< 0.1 Perms)**
Max Moisture Vapor Emission (MVER)	ASTM F1869 (Calcium Chloride)	**Up to 25 lbs / 1,000 sq ft / 24 Hours**
Max Internal Relative Humidity	ASTM F2170 (In-Situ Probe)	**Up to 99% RH**
Alkalinity Resistance	Sustained Pore Water pH	**pH 14.0 Sustained**
Pull-Off Concrete Adhesion	ASTM D4541	**> 500 psi (100% Concrete Substrate Failure)**
Mixed Viscosity @ 77 deg F (25 deg C)	ASTM D2196	**450 - 650 cps (Deep Capillary Wetting)**
Shore D Hardness	ASTM D2240	**80 - 84 Shore D**
Compressive Strength	ASTM D695	**11,200 psi**
Pot Life (Mass @ 72 deg F)	Exotherm Limit	**15 - 20 Minutes (Pour Onto Slab Immediately)**
Tack-Free / Recoat Window @ 72 deg F	Cure Schedule	**4 - 6 Hours Tack-Free | 4 - 24 Hours Recoat**
Required Film Thickness	Single-Coat Vapor Lock	**16 Mils WFT / DFT (100 Sq Ft / Gallon)**

3. SURFACE PREPARATION, MIXING & FIELD APPLICATION PROTOCOL

* 1. Mandatory Profile: Shot-blast or diamond grind concrete to clean, open-pore ICRI CSP 3 profile. Remove all contaminants.
* 2. No Acid Etching: Never acid-etch slabs receiving MVB 49. Residual salts will compromise capillary bond.
* 3. Mixing: Combine 2 Parts A with 1 Part B by volume in a clean mixing pail. Mix 3 minutes at 350 RPM with helical paddle.
* 4. Immediate Placement: Pour entire batch onto slab in ribbons immediately after mixing. Do not allow mixed resin to sit in bucket.
* 5. Gauge Application: Spread with 16-mil notched squeegee at 100 sq ft/gal (300 sq ft per 3-gal kit), then back-roll with 3/8" nap roller.
* 6. Pinhole Inspection: Ensure 100% pinhole-free continuous film across slab and joints. Recoat with EPOXY 49 within 4-24 hours.
* 7. Extended Recoat: If MVB 49 cures beyond 24 hours before next coat, sand thoroughly with 80-grit screens and solvent-wipe.

4. OSHA GHS SAFETY & HANDLING SUMMARY (REFER TO FULL SDS BEFORE USE)

* SIGNAL WORD: Part A (Epoxy Resin) = WARNING | Part B (Modified Amine Curing Agent) = DANGER (OSHA GHS).
* Hazard Statements: Part B: H314 Severe skin burns/eye damage, H373 Organ exposure. Part A & B: H317 Skin sensitizer.
* Required PPE: Chemical-resistant nitrile gloves, splash goggles, protective footwear, and adequate jobsite ventilation.
* First Aid: Eyes - Irrigate immediately with water for 15 minutes and get medical care. Skin - Remove contaminated clothing, wash with soap.
* Storage & Shelf Life: Store indoors at 60 deg F-85 deg F (15 deg C-30 deg C). Protect Part B from atmospheric moisture. 12-month shelf life.