# **EPOXY MVB**



# Moisture Vapor Barrier 100% Solids Epoxy Primer

Part B - MVB • AP-91013-B

## **Product Description**

ALLPRO® Epoxy MVB Moisture Vapor Barrier 100% Solids Epoxy Primer is specially formulated part-B component for the Part-A of AP-91000 ALLPRO® Epoxy two-component, hi-performance chemical resistant gloss epoxy for applications where a moisture vapor barrier (MVB) is required or if the moisture content of the concrete exceeds 4%. These moisture tolerant epoxies can withstand moisture content of up to 25 pounds of moisture per 1,000 square feet per 24 hr. See the product data sheet for AP-91000-01 Epoxy for additional information.

## **Recommended Substrates**

Interior properly prepared concrete floors

#### **Product Features**

- Highly moisture tolerant can withstand up to 25% moisture at 16+ mils DFT
- Short recoat time, as low as 4 hours using Fast Set version
- · Low VOC and low odor
- High build up to 20 mils

Standard Colors: AP-91000-A Clear | AP-91001-A 885 Light Grey
Stock Color Pods: AP-91033-CP Almond 431 | AP-91034-CP Light Grey 885

AP-91031-CP Black 459 | AP-91032-CP Silver 524

AP-91035-CP Grey 305 | AP-91030-CP White 433

#### **Product Limitations**

- Recommended air, product & substrate temperatures 59° 86° F and <85% RH.</li>
- Not recommended for exterior use; as accelerated chalking & fading will occur.
- Expect longer dry times at lower temperatures & low relative humidity
- The color of this product may be affected by high humidity, low temperatures, chemical exposure, and/or exposure to lighting such as sodium vapor lights.
- MVB primers are not color stable and not recommended as topcoats.
- The moisture content of the concrete must be less than 25%.

Flash Point: 199.4°F Non-Flammable

Clean Up: Xvlene

#### Compliance

These products are VOC compliant based on limits provided by EPA, CARB, MPI GPS-1, MPI GPS-2. LEEDv4. OTC and SCAQMD.

Performance Testing Data						
Adhesion	ASTM D4541	>300 PSI, 100% concrete failure	Hardness (Shore D)	ASTM D2240	85 - 90	
Compressive Strength	ASTM D695	12,000 - 13,000	Tensile Strength	ASTM D638	6500 PSI	

Product Data	91013	
Product Type:	<b>Epoxy Moisture Vapor Barrier</b>	
Gloss @60°:	95+	
Wt Solids ±2%:	100%	
Vol Solids ±2%:	100%	
Primer Coat Mils:	16 - 20	
Intermediate Coat Mils:	10 - 16	
Coverage / Gal *	80 - 160	
* coverage and wet and dry millage will vary by substrate type and porosity and the design specifications.		
VOC gms p/L**:	<80	
** less exempt solvents and before the addition of color Pods.		
Mixed Viscosity in Centipose:	Clear 800 - 1000	

Mixed Viscosity in Centipose: Clear 800 - 1000 Colors 2200 - 2500

Induction Time: None

Times listed below are based at 77° F & 50% relative humidity (RH) unless stated otherwise. Dry times, pot life & recoat times listed may vary according to the relative humidity, temperature, film build, color, and air movement of the application environment. Generally, for every 18°F increase in temperature, pot life is cut in half.

 Pot Life: All times are approximations
 @ 59° F & 50% RH
 40 - 60 Minutes

 @ 77° F & 50% RH
 20 - 30 Minutes

 @ 95° F & 50% RH
 10 - 15 Minutes

Mix only what can be immediately used. Exceeding the pot life will likely affect color, gloss, and workability of the product.

Tack Free Time:8 - 12 HoursRecoat time: \*\*\*as soon as the product can be walked upon with normal shoes, it can be recoated.8 - 12 Hours\*\*\*Full cure:7 DaysRecoat Window - After 24 hours, product must be abraded to create a mild profile before re-coating.24 Hours

Shelf Life One (1) Year unopened

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**Surface Condition:** The surface to be coated must be clean, sound, and dry. For best performance, remove dust, dirt, laitance, grease, oil, curing compounds, waxes, and any other contaminants. Any rough spots, projections or surface imperfections should be removed or patched to achieve a level surface prior to the application of any coatings.

**Old or Previously Coated Concrete:** Concrete surface must be cleaned and mechanically prepared using shotblasting, and blasting, and/or diamond grinding. All oils, sealers, curing agents, waxes and fats must be removed prior to product application. Do not apply onto wet substrates. Chloride, moisture, and pH levels should be checked prior to application.

**New Concrete:** New concrete should be allowed to cure for a minimum of 30 days. Compression resistance of concrete must be at least 25 MPa (3625 lbs./inch²) after 28 days and traction resistance must be at least 1.5 MPa (218 lbs./inch²). Shotblasting, sand blasting, and/or diamond grinding is required to remove the surface laitance that appears during the concrete finishing and curing process.

Surface Profile: All existing coatings, laitance, curing compounds, and bond breakers must be removed via shot blasting, scarifying or diamond grinding and provide a suitable profile in accordance with ICRI CSP-2 or CSP-3, but not to exceed the thickness of the coating system. Abrasive blasting or grinding is to leave the concrete in a uniform texture. Over-blasting will result in reduced coverage rates of subsequent coats of primer and finish. Sweep and vacuum any remaining dust, dirt, or contaminants with a wet/dry vacuum. All dirt, foreign contaminants, and laitance must be removed to assure a trouble-free bond to the substrate.

Moisture Content Testing: After the floor has been cleaned and abraded, moisture content tests must be performed. The moisture content must be less than 4 lbs. of moisture per 1,000 square feet per 24 hrs as measured by Tramex® type concrete moisture meter per ASTM F2659. Other acceptable test methods are ASTM F2170 In-Situ Probes or ASTM F1869 Calcium Chloride tests.

Crack Filling & Patching: Patch divots in the floor with a slurry of AP-91000 Epoxy and sand or aggregate, or an approved patching compound. Fill cracks with AP-91024 Crack Filler 100% Solids Fast Set Crack Filler or AP-91023 Polyurea Crack Filler in accordance with the product data sheet. Expansion joints shall be filled with an approved joint sealant.

**Application Conditions:** For the best results, apply when surface, product and ambient temperatures are above 55° F and below 86° F; and relative humidity is <85%. Avoid application when weather conditions are threatening, and late in the day when there is a threat of moisture condensing on wet paint.

#### POT LIFE: THESE PRODUCTS HAVE A VERY LIMITED POT LIFE. MIX ONLY WHAT CAN BE USED IN THE INDICATED TIME TO AVOID ANY LOSS.

**NEITHER COMPONENT WILL WORK UNLESS MIXED WITH THE OTHER!** Do not re-use containers that have been converted or mix with previously catalyzed material.

**Thinning: DO NOT THIN!** Thinning is not necessary.

Mixing Instructions: Always consult the SDS and wear the recommended PPE before mixing or applying. This product has a mixed ratio of 2-parts A to 1-part B. Standard packages are in pre-measured 3-gallon kits and should be mixed as supplied in the kit. We do not recommend that the kits be broken down unless suitable measuring equipment is available. Materials should be pre-conditioned to a moderate temperature of 50° to 73°F prior to use. Higher material temperatures will drastically reduce the pot life and working time of the product. Use a paddle mixer and a variable speed drill at low speed (300 to 450 rpm). Take care not to whip air bubbles when mixing as the bubbles will be difficult to remove once the product is applied to the concrete floor.

Part A - Pre-mixed color or clear: Thoroughly mix each component separately using separate paddle mixers for a minimum of two (2) minutes. Pour the activator (Part B) into Part A and mix for three (3) minutes. During mixing, scrape the walls and bottom of the container at least once with a trowel to obtain a homogeneous mixture and to place the solids content evenly in suspension.

**Application:** For the best results, always plan out your floor and ensure adequate materials, tools and time are available before starting. Paint to a natural break in the surface, such as a corner or edge. After mixing, pour the mixed material onto the floor in a long ribbon 12 to 18 inches wide. Do not scrape or drain containers as there may be un-mixed product on the sides that will not dry properly and leave a defect on the floor. When cutting-in larger surfaces and painting edges or corners, apply with a disposable solvent resistant china-bristle brush. Using a flat or notched squeegee, spread the material to a uniform thickness using sufficient pressure to work the material into the pores of the surface. Immediately back-roll and cross-roll the material with a clean lint-free 3/8" to 1/2" nap solvent and shed resistant woven roller cover for best results. Always maintain a wet edge during application by rolling into the previously applied coating. If necessary, apply again at a right angle. Roller covers will require replacing periodically to prevent catalyzed product from setting up on roller cover or contaminating more freshly placed material. For best results, finish by uniformly tipping off with the roller in one direction.

**Coverage & Dry Time:** Covers approximately 80 - 160 square feet per gallon, depending on the system thickness requirements and the profile and porosity of the surface to be painted. See above for the return to service times for the respective service conditions.

**Recoating:** If a topcoat is to be applied, stay within the recoat window or the surface will have to be sanded or screened to create a mild profile. Check the coating to be sure it has tacked off and that no epoxy blushes were developed (a whitish greasy film or deglossing). If blushing is present, if must be removed with warm soapy water and abrasive pad or xylene. If topcoating a vinyl chip floor, screen the floor to knock off the tips of the chips to ensure a smooth and even surface.

**Clean Up:** Minor spills, painting tools and spray equipment should be immediately cleaned with xylene. More serious spills should be contained and removed with inert absorbent material. Dispose of contaminated absorbent, container, and unused contents in accordance with local, state, and federal regulations.

### SAFETY - KEEP OUT OF REACH OF CHILDREN! DO NOT TAKE INTERNALLY! USE WITH ADEQUATE VENTILATION! USE APPROPRIATE PPE!

**SAFETY PRECAUTIONS:** Refer to the Safety Data Sheet (SDS) and the product label for complete safety and precaution requirements.

**STORAGE & DISPOSAL:** Store locked up. Store in a well-ventilated place. Keep container tightly closed. Dispose of contents and containers in accordance with existing federal, state, and local environmental control laws.

**GENERAL LIMITED WARRANTY:** ALLPRO® makes no warranty, either expressed or implied, concerning this product, its quality, performance, merchantability, or fitness for a particular purpose other than expressly designated security of this label. The buyer assumes all risks of the use and handling of this material.

## **Storage and Disposal**

Product should be kept from freezing temperatures and stored in a cool dry location. Refer to your local city or county government for instructions on disposal options.

ALLPRO® Corporation believes the technical data represented in this technical bulletin to be current and up to date. However, ALLPRO® Corporation makes no warranties or guarantees either expressed or implied. ALLPRO® Corporation claims no responsibility from damages incurred from use by either the purchaser or user of the product.

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