



# LABPOX MVB FAST

100% Solids, High Performance Vapor-Barrier Epoxy

## Description

LABPOX MVB FAST is a 100% solids two-component (2A:1B) vapor moisture epoxy coating with virtually no VOCs. LABPOX MVB FAST acts as a moisture barrier for concrete floors with high residual humidity (up to 100%) as well as new concrete slabs installed within 28 days. LABPOX MVB FAST is used as a primer prior installing a complete epoxy or polyaspartic system. The product can receive a subsequent layer of coating in as little as three hours, thus enabling very rapid commissioning. The product has been formulated with state-of-the-art components and one of the most efficient vapor barrier system in the industry.

## Uses

The LABPOX MVB FAST provides excellent results for the most demanding applications:

- + Industrial, commercial and residential uses
- + Manufacturing facilities
- + Warehouses
- + Commercial centers
- + Office buildings
- + Retail stores
- + Parking garages
- + Metallic systems
- + Food/beverage processing and preparation plants
- + Public facilities including hospitals and schools
- + Pharmaceutical companies

## Advantages

- + Environmentally friendly, 100% solid, VOC and solvent free
- + Virtually no odor
- + Quick curing
- + Suitable for damp concrete substrates
- + Effective membrane against residual moisture up to 100%
- + High degree of permeability
- + Easy 2A:1B mixing ratio
- + Ideal for concrete slabs with less than 28 days of curing
- + Potential for LEED eligibility
- + Can be used in combination with epoxy or polyaspartic floor systems
- + Low viscosity, easy to apply
- + Indoor and outdoor use

## Application Data

Mix Ratio	2A:1B	
Packaging	3 US gallon kit (3 x 3.78L) 15 US gallon kit (3 x 18.9L)	
Color	Clear, grey, tan, black, white	
Solids Coverage / US GAL	Mils	sq <sup>2</sup>
	10	160
	12	133
	14	114
	Recommended	100
	18	89
	20	80
Shelf Life	One year, in original unopened factory pails under normal storage conditions	
Application temp.	Min 16°C / 61°F, Max 30°C / 86°F	
Cure Time		
Working time	30 min	22°C / 72°F and 30% Rel. Hum.
Tack free	4 hours	22°C / 72°F and 30% Rel. Hum.
Dry through	14 hours	22°C / 72°F and 30% Rel. Hum.
Recoat	4-24 hours	22°C / 72°F and 30% Rel. Hum.

## Technical Properties

Hardness	ASTM D2240	80	Shore D
Permeability (dry concrete)	ASTM E96	<0.1 perms	@ 10 mils
Permeability (up to 100% residual humidity)	ASTM E96	<0.1 perms	@ 16 mils
Viscosity	Clear / Colors	1100 +/- 50	cps
Solids Content		100	%
VOC Content		0	g/l

## Surface Preparation

Concrete should be clean, dry and free of grease, oil, paint, curing agents or any contaminants that may inhibit proper adhesion. The surface humidity should be controlled for more than three hours prior installing the LABPOX MVB FAST. Proper testing procedures should be practiced with regards to soil acidity. Take a pH reading to ensure concrete is neutral (a reading between 5 and 9 is acceptable).

Surface must be shot blasted or prepared with an equivalent mechanical means in line with CSP-3 or more. Ensure the surface is free of contaminants, and the pores are open to allow the product to penetrate.



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When using a broadcast decorative system, the base coat with the flakes should be scraped and cleaned after appropriate hardness is reached prior applying the topcoat. Contact us for more details on how to use the product with broadcast systems.

## Mixing

Before final mixing, pre-mix part A at low speed. Special attention must be paid to colored versions of the product since pigments may have separated from the rest of the formulation during storage. Mixing should be done until the color is uniform.

Then, mix 2 parts of A and one part of B together at low speed in a separate container. The mixing container must be clean and free of any outside particle. Mix thoroughly for a minimum of three minutes, until a completely homogeneous mixture is obtained. Use a low-speed drill (300-450 rpm) to minimize the entrapment of air. It is recommended to activate the mixer in the reverse mode after the first minute for the liquid to mix from the bottom of the mixing can to the top. Make sure to scrap sides and bottom of mixing container so no unmixed material remains. Mix only the necessary quantity to be used according to the specified pot life / working time.

## Application

The LABPOX MVB FAST has been specifically designed to adhere to damp concrete substrates with a residual humidity of up to 100% and new concrete slabs having been installed within 28 days. Note that very high levels of humidity may indicate a hydrostatic pressure problem. Hydrostatic pressure is usually caused by a drainage failure or a water leak. Make sure that the causes of hydrostatic pressure are checked before installing the product.

Apply only when air and floor temperature is between 16°C / 61°F - 30°C / 86°F, and with a relative humidity of less than 85%. If a heated floor is installed, ensure that the system is turned off during application and for the full duration of the cure.

The product has been specifically designed to adhere to concrete surfaces. Make sure the concrete surface is completely dry at the time of installation. The surface humidity must be controlled for more than three hours, the time required for the product to harden sufficiently.

If floor repairs are to be made, use cementitious repair products which can dry adequately in the presence of moisture or use LABPOX MVB FAST mixed with silica or other filling agents. When mixed with silica or other filling agents, use a low-speed drill to minimize the entrapment of air.

The vapor barrier performance of the product is directly proportional to the thickness of the coating. Labsurface recommends 16 to 18 mils. The vapor barrier protection increases with thickness. It is also important that the film thickness is uniform over the entire floor.

## Rapid Aggregates System with Vinyl Flakes or Anti-Slip Finish

When the surface has been properly prepared, apply 16-18 mils of the LABPOX MVB FAST using a squeegee and back roll to even out the surface. It is recommended to apply the product in a multidirectional manner (north-south, east-west) to ensure that the desired coverage rate is achieved. Saturate to rejection with 1) vinyl flakes and install a polyaspartic or epoxy topcoat or 2) silica sand for an anti-slip system. For increased and more consistent permeability over the entire covered area, install two coats of 8-9 mils each and saturate only the second coat with aggregates. Then, scrape or broom sweep and vacuum the surface to remove all loose particles before continuing with a LABFAST, LABSHIELD or LABPOX system.

## System with Optimal Permeability

For a system with optimal permeability and to achieve the specified level of permeability less than or equal to 0.1 perm according to ASTM E96, the following steps need to be completed. First use the clear version of the LABPOX MVB FAST for optimal adhesion and permeability. When the surface has been properly prepared, apply the first coat at 6-8 mils with a squeegee (no back roll) to allow a good seal of the surface and to minimize the pinholes phenomenon. Once dry, if there are pinholes, scrape to burst bubbles and clean. Then repair the pinholes using the LABPOX MVB FAST mixed with silica sand. While mixing the silica sand, make sure there is no air bubbles trapped in the mix. Then spread the second coat of LABPOX MVB FAST to a minimum thickness of 8-10 mils (for a total system thickness of 16 mils or more) using a squeegee and back roll to even out the surface. It is recommended to apply the product in a multidirectional manner (north-south, east-west) to ensure that the desired coverage rate is achieved. Then, continue building the system with a LABPOX 30, 40 UV or 35 epoxy. A polyaspartic system can only be considered following the installation of a layer of LABPOX 30, 40 UV and 35 for proper adhesion. Any repairs before or during the application of the system should be made with the LABPOX MVB FAST. No repair with CRACK FILLER, INSTANT PU REPAIR or POLYASPARTIC QUICK REPAIR is recommended as it will affect the permeability of the system.

## Recoat

Do not recoat without sanding if last coating of the product has been applied for more than 24 hours. The floor surface should be sanded/abraded until a uniform dullness is achieved. There should



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be no gloss on the prior coating after vacuuming and before applying the next coat. No need to sand if silica broadcast technique to saturation was used.

LABPOX products chemically adhere to LABPOX MVB FAST without sanding within a 24- hour window. LABFAST and LABSHIELD systems do not chemically adhere to LABPOX MVB FAST and adhesion is suboptimal even when the product is sanded. For LABFAST and LABSHIELD systems, it is therefore necessary to use aggregates (flakes or silica sand in full saturation) in order to obtain good adhesion. Contact LABSURFACE to obtain more details on systems including our recommendations if an external system is envisaged.

## Limitations

The surface humidity must be controlled for more than three hours, the time required for the product to harden sufficiently. If this applies, make sure that the causes of hydrostatic pressure are checked before installing the product. The LABTEC Universal Pigment Pods are not compatible with the LABPOX MVB FAST. Although this product may be applied in a wide range of thickness, limitations may apply when taking into consideration curing time. Everything else being equal, thicker is the film, quicker is the curing time. Temperature will also impact curing time. Curing time may extend significantly at low temperature levels and the surface may be affected. Do not clean the finished surface during the week following installation. Keep the product stored at room temperature to ensure consistent results.

Labsurface stands behind the quality of its products. However, Labsurface cannot guarantee results since Labsurface has no control over surface preparation, operating conditions and application procedures. Clients are solely responsible to test Labsurface's products to determine if they perform as expected. To meet our strict requirements, we are continuously testing our coatings and on occasion, formulations may be modified to improve certain properties within each coating. Information and data included in this reference document may not be up to date as of the date of reference. Contact Labsurface for further information regarding the limitations of this product.

## Available Colors

Clear, Grey, Tan, Black, White

- + Not compatible with LABTEC Universal Pigments Pods

**Refer to the most recent Material Safety Data Sheet prior using this product**

## Labsurface

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