



LABPOX 40

100% Solids, High Performance Epoxy Providing a Superior UV Resistance

Description

The LABPOX 40 UV is a 100% solids two-component (2A:1B) epoxy floor coating system which is virtually VOC-free. The product is translucent and displays a superior resistance to UV irradiation in this product category (color retention over time) best suited for residential and commercial applications. It possesses superior mechanical properties as well as a long pot life and working time. Ideal for metallic systems. The LABPOX 40 UV has been designed as a topcoat epoxy but it is self-priming. The LABPOX 40 UV formulation is based on a high-performance cycloaliphatic polyamine technology displaying outstanding properties and superior aesthetic finish.

Uses

The LABPOX 40 UV provides excellent results for the most demanding applications:

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

Advantages

- + Offering one of the best UV resistance in this product category
- + Environment friendly (100% solids, VOC-free and no solvent)
- + Potential for LEED eligibility
- + Virtually odor free
- + Easy application with long pot life and working time (60 minutes)
- + Ideal for metallic epoxy systems
- + Good elongation and excellent abrasion resistance
- + High resistance to amine blush and contamination (fish eyes)
- + Excellent for letting out bubbles, even for thick layers
- + Superior mechanical and chemical properties
- + Impermeability / low moisture sensitivity
- + High density of the product prevents dirt penetration resulting in low maintenance post application

Application Data

Mix Ratio	2A:1B	
Packaging	3 US gallon kits (3 x 3,78L) 15 US gallon kits (3 x 18.9L)	
Color	Clear, Super Opaque White	
Solids Coverage / US GAL	<u>Mils</u>	<u>Sq. Ft.</u>
	8	200
	10	160
	12	133
	30	54
	40	40
	50	32
Shelf Life	One year, in original unopened factory pails under normal storage conditions	
Substrate temp.	Min 16°C / 61°F, Max 30°C / 86°F	
Cure Time		
Working Time	60 min	Min 16°C / 61°F, Max 30°C / 86°F
Tack Free	9 hours	Min 16°C / 61°F, Max 30°C / 86°F
Recoat Time	9-24 hours	Min 16°C / 61°F, Max 30°C / 86°F
Dry Through	13 hours	Min 16°C / 61°F, Max 30°C / 86°F
Foot Traffic	24 hours	Min 16°C / 61°F, Max 30°C / 86°F
Light Traffic	48 hours	Min 16°C / 61°F, Max 30°C / 86°F

Technical Properties

Hardness	ASTM D2240	80	Shore D
Abrasion (1000 cycles)	ASTM D4060	78	(mg loss)
Pull-Off Test		>3	Mpa
Elongation	ASTM D412	9	%
Tensile Stress	ASTM D412	8000	PSI
DE 500 hr	ASTM 3424	7	
Viscosity	Clear	800 +/-50	cps
Solids Content		100%	
VOC Content		9	g/l



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Surface Preparation

Concrete should be clean, dry and free of grease, oil, paint, curing agents or any contaminants that may inhibit proper adhesion. Concrete should be cured at least 28 days before applying the coating system. If the concrete slab has been installed within 28 days, the LABPOX MVB moisture mitigation system can be considered (refer to the LABPOX MVB technical data sheet for additional details).

Proper testing procedures should be practiced with regards to soil acidity and moisture vapor transmission. Take a pH reading to ensure concrete is neutral (a reading between 5 and 9 is acceptable). Use a calcium chloride test to measure moisture vapor transmission. Readings of 3.5 lbs/1000 sq. ft. during a 24-hour period or less are acceptable for applying coatings. Floors with higher results can receive the LABPOX MVB moisture mitigation system (refer to the LABPOX MVB technical data sheet for additional details).

Surface must be shot blasted or prepared with an equivalent mechanical means in line with CSP-2 or more. Ensure the surface is free of contaminants, and the pores are open to allow the product to penetrate.

If the product is applied over an existing LABPOX flooring system that has been cured for a period longer than 24 hours, it should be sanded with a proper floor machine. A mechanical bond to a sanded surface is required and the pores of the existing coating must be opened for better adhesion. Vacuum dust and properly wipe the surface with alcohol prior applying the LABPOX 30. Conduct adhesion tests if there is a doubt about surface preparation.

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. If a metal pigment system is being considered, it is imperative to read the LABTEC METALLIC PIGMENTS data sheet for mixing times as well as advice and advice.

Then, mix two 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 90 seconds for the liquid to mix from the bottom of the mixing can to the top. Make sure to scrape 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 40 UV is used mainly as a topcoat layer. The product can also be used as a base layer when a clear wet or white system is sought.

Apply only when air and slab temperature is between 16-30°C and the 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 designed to adhere to concrete surfaces.

The LABPOX 40 UV is self-priming. When used as a base coat, apply with a squeegee in thin coat without back rolling to seal properly the surface, this will help reduce the creation of pin holes. For the second coat, repeat the same steps and back roll the product. It is recommended to apply the product in a multi-directional (north-south, east-west) motion to ensure proper coating thickness. If there is a significant presence of pinholes after applying the first coat due to the porosity of the concrete, sand and plug the pinholes with epoxy gel or LABPOX 40 UV when a wet look system is sought.

We recommend the application of one base coat and one topcoat for total system thickness of approximately 20 mils for standard systems. For metallic systems, we recommend a thickness level between 30 and 50 mils for the metallic topcoat. The LABTEC METALLIC PIGMENTS system requires specific installation steps (Refer to the LABTEC METALLIC PIGMENTS technical data sheet or contact us for additional details).

For better stain and chemical resistance, we strongly recommend the usage of a AQUALAB PUR, LABFAST or LABSHIELD product over the LABPOX 40 UV or over any epoxy product other than a Novolac epoxy. In addition to the superior chemical resistance and cleanability, the matte version of the AQUALAB PUR possesses a unique characteristic which is to make the scratches less apparent. The AQUALAB PUR, LABFAST or LABSHIELD products also provide additional UV protection that will significantly slow the yellowing of epoxy.

We recommend the LABTEC vinyl chips when installing a flake system. Proper testing should be conducted prior application.



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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 be no gloss on the prior coating after vacuuming and before applying the next coat.

Limitations

Requires a dry substrate. Moisture content of the substrate must be below 4% before applying the product. This product should not be applied to concrete substrates that show high levels of moisture/humidity unless a moisture a LABPOX MVB moisture mitigation system is used. 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. Drying time will be faster in a hot environment. Conversely, the drying time will be longer in a cold environment and the appearance of 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. Not suited for exterior applications.

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, Super Opaque White

Metallic Color Chart





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LABTEC Universal Pods

Standard Color Chart



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

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