



LABPOX 40

100% Solids, High Performance providing Excellent UV Resistance

Description

The LABPOX 40 UV is a 100% solids two-component epoxy floor coating system which is VOC-free and is virtually odor free. The product is translucent and displays an excellent resistance to UV irradiation (excellent color retention over time) best suited for residential and commercial applications. It possesses superior mechanical and chemical properties as well as a long pot life and working time. Ideal for metallic systems. It can also be used as a topcoat on LABCAST UV products (see section, CASTING APPLICATIONS). The LABPOX 40 UV has been designed as a top coat 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 resistance 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
- + Casting applications
- + Furnitures, Woodcrafting

Advantages

- + Offering one of best UV resistance in the industry
- + 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 only	
Solids Coverage / US GAL	<u>Mils</u>	<u>Sq. Ft.</u>
	8	200
	10	160
	12	133
	30	54
	40	40
	50	32
	1/8	13*
1/4	6*	
Shelf Life	One year, in original unopened factory pails under normal storage conditions	
Substrate temp.	Min 16°C, Max 30°C	
Cure Time		
Working Time	60 min	22°C and 55% rel. hum
Tack Free	9 hours	22°C and 55% rel. hum
Recoat Time	9-24 hours	22°C and 55% rel. hum
Dry Through	13 hours	22°C and 55% rel. hum
Foot Traffic	24 hours	22°C and 55% rel. hum
Light Traffic	48 hours	22°C and 55% rel. hum

* Top coat on LABCAST UV

Technical Properties

Hardness, Shore D	ASTM D2240	80	
Pull-Off Test		≈ 3	Mpa
Elongation	ASTM D412	7	%
Tensile Stress	ASTM D412	8000	PSI
DE 500 hr	ASTM 3424	5	
Solids Content		100%	
Viscosity	Clear	800 +/-50	cps



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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.

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. Higher results should receive the LABPOX MVB moisture mitigation system (refer to the LABPOX MVB technical data sheet for installation details).

Surface must be prepared mechanically 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 epoxy 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 prior applying the LABPOX 40 UV. 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 sanded and cleaned after appropriate hardness is reached prior applying the top coat. Contact us for more details on how to use the product with broadcast systems.

Mixing

Before final mixing, pre-mix parts A at low speed.

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 three minutes using a low speed drill (300-450 rpm) to minimize the entrapping of air. It is recommended to activate the mixer in the reverse mode after the first 90 seconds in order 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

Apply only when air and floor temperature is between 16-30°C and the relative humidity less than 85%. The product has been especially designed to adhere on 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.

We recommend the application of one base coat and one top coat for total system thickness of approximately 20 mils for standard systems. For metallic systems, the top coat can be applied at thickness level between 25 and 50 mils. The Epoxy Metallic System requires specific installation steps (Refer to the Metallic pigment technical data sheet or contact us for additional details).

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

Casting Applications

For casting applications, the LABPOX 40 UV is recommended as a top coat. It is used along with LABCAST UV products. Its transparency and viscosity allow pouring up to 1/4" and provides a smooth, crystal clear, bubble-free surface ideal for art and hobby applications. Similar than concrete floor applications, make sure the surface is clean and no contaminants are present before applying. It is best to use a serrated squeegee for the application. When mixing parts A and B, avoid mixing at high speed to minimize air entrapment. During installation, avoid excessive handling of the product in order to limit the entrapment of air in the film. Air entrapment can affect the appearance of the surface during the curing process. Refer to the LABCAST UV products Data Sheets for further details including recoat windows.

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.



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Clean Up

Excess material (A and B) should be mixed together and allowed to cure. Cured product may be disposed of without restriction. Uncured material should be stored in a suitable and sealed container and may be disposed in accordance with provincial and federal regulations.

Limitations

Requires a dry substrate. This product should not be applied to concrete substrates that show high levels of moisture/humidity (>4%) unless a moisture 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. Not suited for exterior applications. 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. Keeping the product stored at room temperature will make the application easier and dry times shorter.

Labsurface stands behind the quality of its products. However, Labsurface cannot guarantee final 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. In order 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

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

Labsurface

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