LABPOX 30

100% Solids, High Performance Epoxy

Technical Data Sheet

Description

The LABPOX 30 is a 100% solids two-component (2A:1B) epoxy floor coating system which is virtually VOC-free. This product possesses superior mechanical properties best suited for industrial, commercial, and residential applications. It offers a long pot life and working time. The LABPOX 30 has been designed as a topcoat epoxy but it is self-priming. For heavy traffic applications, we recommend using Labsurface's EPOXY PRIMER prior the installation of the LABPOX 30. The LABPOX 30 formulation is based on a high-performance cycloaliphatic polyamine technology displaying outstanding properties and superior aesthetic finish.

Uses

The LABPOX 30 provides excellent results for the most demanding applications:

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

Advantages

+ 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 min)
+ Can be used for metallic epoxy systems
+ Superior mechanical and chemical properties suited for the toughest industrial applications
+ Good elongation and excellent abrasion resistance
+ High resistance to amine blush and contamination (fisheyes)
+ Excellent defoaming even at thicker levels
+ Impermeability / low moisture sensitivity
+ High density of the product prevents dirt penetration resulting in low maintenance post application
+ Available in unlimited color range

Application Data

Mix Ratio	2A:1B	
Packaging	3 US gallon kit (3 x 3.78 L) 15 US gallon kits (3 x 18.9 L)	
Color	Clear or colored	
Solids Coverage / US GAL	Mils	Sq. Ft.
	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	
Pot Life	50 min	
Application Temperature	Min 16°C / 61°F, Max 30°C / 86°F	
Cure Time	**22°C / 72°F and 50% Rel. Hum.**	
Working time	60 min	
Tack Free	9 h	
Recoat	10 - 24 h	
Dry Through	13 h	
Foot Traffic	24 h	
Light Traffic	48 h	
Full Cure	1 week	

Technical Properties

Hardness ASTM D2240	80	Shore D at maturity
Abrasion (1000 cycles) ASTM D4060	78 (mg loss)	
Pull Off Test ASTM D4541	>3 Mpa	
Solids Content	100%	
Viscosity (A&B)	900 +/-100 cps	
VOC Content	9 g/l	
Elongation ASTM D412	9%	
Tensile Strenght ASTM D412	7700 psi	

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 Tramex® CME / CMExpert to measure the moisture content of the concrete slab. Moisture content must be below 4% before applying the product. It is necessary to take several measurements at various places on the slab. If the reading is higher than 4%, steps will be required to neutralize the soil moisture. The first thing to do is to make sure that the floor is completely dry before application. Floors with higher results can receive the LABPOX MVB moisture mitigation.

Surface must be shot blasted or prepared with an equivalent mechanical means in line with CSP-2 or more depending on the application. 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 or solvent prior applying the LABPOX 30. The alcohol or solvent must be completely evaporated before applying the product. This preparation is necessary to ensure proper adhesion. Conduct adhesion tests if there is a doubt about surface preparation.

When installing a broadcast decorative system, after appropriate hardness has been reached, the base coat in which the aggregates are broadcasted should be carefully scraped and swept and then thoroughly vacuum cleaned to remove any remaining residues 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 using a Jiffy® or an Exomixer® mixer blade. 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 application advice.

Then, using a Jiffy® or an Exomixer® mixer blade, 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 particles. 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 air entrapment. 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. Once the product is properly mixed, it needs to be immediately poured on the floor. Leaving mixed material for too long in a mixing pail will create an exothermic reaction and the product will no longer be usable.

Application

Apply only when air and slab temperature is between 16°C / 61°F - 30°C / 86°F and the relative humidity of less than 85%. If a heated floor is installed, ensure that the system is turned off 2-4 hours (depending on type of radiant floor) before application and for the full duration of the cure. The product has been designed to adhere to concrete surfaces.

The LABPOX 30 is self-priming. Apply the first coat with a squeegee in thin coat and back roll to properly seal the surface. If the concrete is porous, we suggest a tight squeegee, no back roll. If there is appearance of pin holes during the application, allow sufficient time to go back and either burst the pin holes by rolling back and forth or with another squeegee pass. For colored versions, the use of aggregates can also help plugging the pin holes during this step. If there are still pinholes after applying the first coat, sand and plug the pinholes with epoxy gel prior applying the second coat. For the second coat, squeegee and back roll the product to the desired thickness. It is recommended to apply the product in a multi-directional (north-south, east-west) motion to ensure proper coating thickness.

For standard systems, we recommend the application of one base coat and one topcoat for total system thickness of approximately 20 mils.

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). It is crucial to prevent sweat or water droplets from coming into contact with the product while blending the product or spreading/rolling it out. This precaution is necessary to avoid the formation of circles and/or fish eyes. Additionally, wall-mounted Air Wick type devices and aerosols should be avoided during both the installation and drying processes, as they can also cause circles or fish eyes.

For high traffic applications, it is recommended to use Labsurface's EPOXY PRIMER before installing the LABPOX 30. The EPOXY PRIMER will seal the slab and display higher flexibility. A thickness of 4-6 mils is recommended for the EPOXY PRIMER. Labsurface's EPOXY PRIMER cures within 4 hours under normal conditions while proving a working time of 45 minutes (refer to the EPOXY PRIMER TDS for more details).

For better stain and chemical resistance, we strongly recommend the usage of a AQUALAB PUR, LABFAST or LABSHIELD product over the LABPOX 30 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 the epoxy.

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

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 measured with a Tramex® CME / CMExpert and 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. Leaving mixed material for too long in a mixing pail will create an exothermic reaction and the product will no longer be usable. 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. Although Labsurface makes reasonable efforts to control the quality of the finished product and its components, ASTM results may vary depending on the quality of the inputs delivered to Labsurface.
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.

This product is not immune to transfers of plasticizers contained in rubber, including car tires. Although the transfer of plasticizers phenomenon is very rare, under specific circumstances combining high tire temperature with i) high levels of plasticizers, and/or (ii) certain plasticizer types and/or (iii) certain tire types, it is possible for plasticizers to transfer from the tire rubber to the floor coating. This phenomenon is irreversible and can cause staining of the coated area. Tires should therefore cool down prior to the parking of the vehicle in the coated area.

Pressure washing and power washing (power washing involves water heating while pressure washing uses cold water) must be used with caution. Extreme pressure could damage the coating. Using hot water could also cause irreversible damage. When used to clean polymer coatings, water temperature must not exceed 49°C / 120°F and should be ideally between 32°C and 43°C / 90°F and 110°F.

Exposure to certain chemicals may cause reactions similar to those experienced with allergies. Chemicals that may cause sensitivity include synthetic and natural substances found in the Part A or the Part B of flooring or casting products. Once cross linked and completely cured, those substances are inert and therefore should not result in allergic reactions. Raw materials used by Labsurface do not differ significantly from comparable products manufactured by our competitors.

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

Available Colors

Pre-Tint and LABTEC Universal Pigment Pods Standard Color Chart

Metallic Color Chart

\+ Full color customization available

Labsurface

101-1079 des Forges, Terrebonne, QC, Canada J6Y 0J9
Phone: 450-966-9000 / Fax : 450-621-3135
Labsurface.com