



LABFAST VOC EXEMPT

High Performance Top Coat Polyaspartic, Low Viscosity

Description

The LABFAST VOC EXEMPT is a two-component (1A:1B) polyaspartic floor coating system which is VOC exempt. The LABFAST VOC EXEMPT is used as a colored base coat and a clear topcoat using a common hardener. High solids versions (70, 80 and 90%) are available as well as a prolonged working time version (+) and a fast cure version (-). The system provides a quick turnaround with very rapid curing time (tack free of 35-45 minutes) allowing the installation in a single day. The product displays excellent curing capability even at very low temperature levels. This product offers superior mechanical and chemical properties and is low maintenance. It also displays a superior aesthetic finish and excellent UV stability which makes it ideal for interior and exterior applications. Two- or three-coat systems can be considered.

Uses

The chemical and mechanical properties of LABFAST VOC EXEMPT provide excellent results for several applications:

- + Parking garage floors
- + Other residential applications
- + Commercial centers
- + Office buildings
- + Retail stores
- + Manufacturing facilities
- + Public facilities including hospitals and schools
- + Other commercial uses

Advantages

- + VOC-Exempt
- + Potential for LEED eligibility
- + High solids content ~70%, 85%, 90%
- + Non-yellowing
- + Excellent impact and abrasion resistance
- + 1:1 system with common hardener for the base coat and top coat
- + Possibility to install base coat and top coat in a single workday
- + Cures quickly – recommended to obtain best curing at very low temperature levels (below zero Celsius)
- + Ideal for exterior applications
- + (+) version offers longer working time of approx. 25 minutes
- + Possible to install two- or three-coat systems
- + Easy to install due to the very low viscosity of the product
- + Very long recoat window and pot life
- + Excellent chemical and mechanical resistance

- + Impermeability / low moisture sensitivity
- + Superior gloss finish
- + High density of the product prevents dirt penetration resulting in low maintenance

Application Data

Mix Ratio	1A:1B		
Packaging	2 US gallon kits (2 x 3.78L) 10 US gallons kits (2 x 18.9L)		
Color	Clear or colored		
Wet Coverage / US GAL	<u>Mils</u>	<u>Sq. Ft.</u>	
	4	400	
	5	320	
	6	267	
	7	229	
	8	200	
	9	178	
	10	160	
	11	145	
	12	133	
	13	123	
	14	114	
	15	107	
	16	100	
Shelf Life	Six months, in original unopened factory pails under normal storage conditions		
Application temp.	Sub 0°C, Max 30°C		
Cure Time ⁽¹⁾	(-) (+)		
Working Time	15 25	min	22°C and 30% Rel. Hum.
Tack Free	45 120	min	22°C and 30% Rel. Hum.
Recoat Time	45 120	min	22°C and 30% Rel. Hum.
Dry Through	2 6	hours	22°C and 30% Rel. Hum.
Foot Traffic	12 12	hours	22°C and 30% Rel. Hum.
Light Traffic	24 24	hours	22°C and 30% Rel. Hum.
Full Cure	2 2	weeks	22°C and 30% Rel. Hum.

⁽¹⁾ LABFAST 80 VOC EXEMPT

Detailed Curing Data

	Solids	Working Time	Tack Free	Dry Through	Recoat Time
LABFAST 70 VOC Exempt -	70%	15 min	35 min	2 h	35 min - 24 h
LABFAST 80 VOC Exempt -	80%	15 min	45 min	2 h	45 min - 24 h
LABFAST 80 VOC Exempt +	80%	25 min	2 h	6 h	2 h - 24 h
LABFAST 90 VOC Exempt -	90%	15 min	45 min	2 h	45 min - 24 h
	Foot Traffic	Light Traffic	Full Cure	Shore D / 24h	Shore D / Final
LABFAST 70 VOC Exempt -	24 h	48 h	2 weeks	30	70
LABFAST 80 VOC Exempt -	24 h	48 h	2 weeks	60	70
LABFAST 80 VOC Exempt +	24 h	48 h	2 weeks	10	70
LABFAST 90 VOC Exempt -	24 h	48 h	2 weeks	35	70



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Technical Properties

Hardness	ASTM D2240	70	Shore D
Tensile Strength	ASTM D412	5500	psi
Delta E (yellowing) 500 hr	ASTM 3424	<2.0	
Pull-Off Test ⁽¹⁾		≈3	Mpa
Abrasion (1000 cycles) ⁽²⁾	ASTM D4060	40	(mg loss)
Gardner Impact (Dir/Rev)		>140	lbs
VOCs	VOC-Exempt		
Solids Content	70% - 85% - 90%		
Elongation	ASTM D412	51	%
Viscosity	Clear	Color	
	LF70	200+/-50	200 +/-50 cps
	LF80	300+/-50	300 +/-50 cps
	LF90	500 +/-50	NA cps
VOC Content		0	g/l

⁽¹⁾ After six months

⁽²⁾ LABFAST 80 VOC EXEMPT

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. The LABFAST VOC EXEMPT does not chemically bound to the LABPOX MVB, flakes or silica sand aggregates are required to get a mechanical bound (refer to the LABPOX MVB technical data sheet for application 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 application 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 to an existing LABFAST flooring system that has been cured for more than 24 hours (at 22°C), the floor surface should be sanded properly until a matte appearance is reached above and between the flakes. To achieve this result, it is necessary to sand in a multidirectional way and on more than one occasion. It is also necessary to use xylene to remove all dust after sanding and to soften the existing layer so that it can merge with the new layer. The use of xylene for this task is mandatory.

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 bound 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 LABFAST VOC EXEMPT. Conduct adhesion tests if there is a doubt about surface preparation.

The base coat with the flakes should be scraped and cleaned after appropriate hardness is reached prior applying the topcoat

Mixing

Before final mixing, pre-mix part A individually 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 one part 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 entrapping of air. It is recommended to activate the mixer in the reverse mode after 90 seconds 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

Best results will be obtained between -10°C and 30°C and with a relative humidity of less than 80%. This product will also cure at temperatures well below -10°C Celsius. %. 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 especially designed to adhere on concrete surfaces.



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Once the surface has been properly prepared, squeegee 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.

The following flake systems can be considered :

Product	2-Coats System		3-Coats System		
	Base Coat + LABTEC Chips	Top Coat	Base Coat 1	Base Coat 2 + LABTEC Chips	Top Coat
LABFAST VOC - EXEMPT 70			4-9 mils	4-9 mils	
LABFAST VOC - EXEMPT 80	8-13 mils	8-13 mils	4-9 mils	4-9 mils	8-13 mils
LABFAST VOC - EXEMPT 90		8-13 mils			8-13 mils

The LABFAST VOC EXEMPT is used as a colored base coat and a clear topcoat using a common hardener. A prolonged working time version (+) and a fast cure version (-) are available.

We recommend the LABTEC vinyl chips when installing a flake system. Do not exceed a thickness of 20-30 mils for the entire system as solvent entrapment may occur. It is important to match the color of the base coat with the blend of the flakes used. To that effect, Labsurface has made recommendations. Most of the blends are better matched with our pre-tint colors but some blends are better matched using our LABTEC Universal Pigment Pods (see LABTEC Vinyl Chips section).

It is also possible to use the LABFAST VOC EXEMPT as a protective coat over epoxy. In addition to the superior chemical resistance and cleanability, the LABFAST VOC EXEMPT also provides additional UV protection that will significantly slow the yellowing of epoxy over time. It will also provide a high gloss finish. Colored versions of the LABFAST VOC EXEMPT can also be used as a protective coat, either pre-tint or using the LABTEC Universal Pigment Pods. When used as a protective layer on epoxy, a thickness of 10 mils is recommended.

Proper tests should be conducted prior application. Contact a Labsurface representative for additional information.

Recoat

If the product is applied to an existing LABFAST flooring system that has been cured for more than 24 hours (at 22°C), the floor surface should be sanded properly until a matte appearance is reached above and between the flakes. To achieve this result, it is necessary to sand in a multidirectional way and on more than one occasion. It is also necessary to use xylene to remove all dust after sanding and to soften the existing layer so that it can merge with the new layer. The use of xylene for this task is mandatory. Make sure the solvent

is completely evaporated and there are no residues. In case there are remaining residues, wipe the surface using a dry rag or swab.

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 LABPOX MVB moisture mitigation system is used. Do not exceed a thickness of 20-30 mils for the entire system as solvent entrapment may occur above those levels. It is recommended to use 100% solids products and avoid solvent based products for installations beyond those normal thickness levels. It is also recommended to do proper testing if a nonconventional installation is considered. Everything else being equal, thicker is the film, longer is the curing time. Drying time will be faster in a hot and/or humid environment. Conversely, the drying time will be longer in a cold and/or dry environment. Do not clean the finished surface during the week following installation. Keeping the product stored at room temperature.

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.



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Available Pre-Tint Colors

Clear, Grey, Tan, Black, White

+ Full color customization available

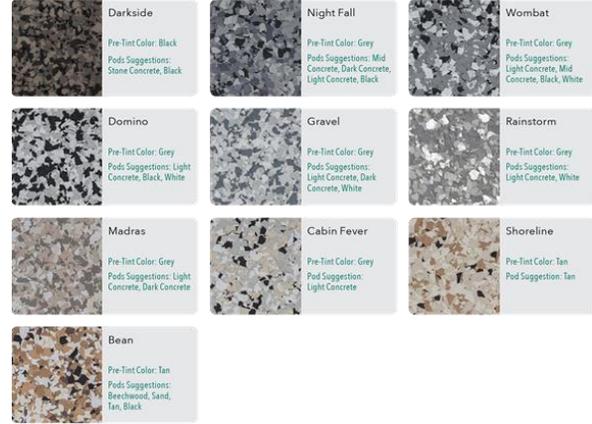
LABTEC Universal Pods

Standard Color Chart



LABTEC Vinyl Flakes

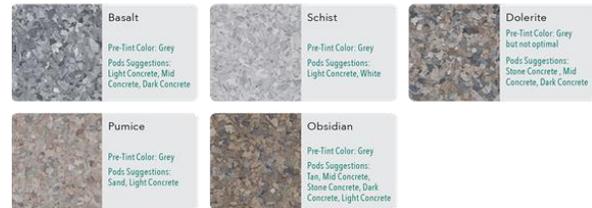
SIGNATURE LABTEC CHIPS 1/4"



SIGNATURE LABTEC CHIPS 1/16"



MARBLE LABTEC CHIPS



TERRAZZO LABTEC CHIPS



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

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