

Polyaspartics 85% Solids RT-PA85 (+/-)

Description

The POLYASPARTIC 85% is a two-component (1:1) polyaspartic floor coating system with a very faint odor. The POLYASPARTIC 85% is used as a base coat (colored) and a clear topcoat using a common hardener. High solids versions (85 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 approx. 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. We recommend the utilization of the Chips Unlimited in combination with POLYASPARTIC 85% products. Two- or three-coat systems can be considered (ask a ResinTek representative for additional details).

Uses

The chemical and mechanical properties of POLYASPARTIC 85% provide excellent results for a number of applications:

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

Advantages

- + Faint odor
- + High solids content, 85% and 90%
- + Excellent UV, non-yellowing and impact resistance
- + 1:1 system with common hardener for the base coat and topcoat
- + Possibility to install base coat and topcoat in a single workday
- + Cures quickly – recommended to obtain best curing at very low temperature levels (below zero Celsius)
- + (+) version offers longer working time of approx. 25 minutes
- + Possible to install two- or three-coat systems using a single product
- + Easy to install due to the very low viscosity of the product
- + Possible to install 2- or 3-coat systems
- + Very long re-coat 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

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Application Data

Mix Ratio	1A:1B
Packaging	2 Gallon Kit (2×3.78L) 10 Gallon Kit (2×18.9L)
Color	Clear or Pigmented

Wet Coverage/US Gallon	Mils	Sq. Ft.
	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

Cure Time ¹	(-)	(+)	
Working Time	15 min	25 min	22°C and 55% rel. hum.
Tack Free	45 min	120 min	22°C and 55% rel. hum.
Re-Coat Time	45 min	120 min	22°C and 55% rel. hum.
Hard Dry	2 hours	6 hours	22°C and 55% rel. hum.
Foot Traffic	24 hours	24 hours	22°C and 55% rel. hum.
Light Traffic	48 hours	48 hours	22°C and 55% rel. hum.
Full Cure	2 weeks	2 weeks	22°C and 50% rel. hum.

¹Polyaspartics 85%

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Technical Properties

Hardness, Shore D	ASTM D2240	> 65
Tensile Strength	ASTM D412	5500 psi
DE 500 hr	ASTM 3424	< 2.0
Pull-Off Test	~ 3	Mpa
Abrasion (1000 cycles) ³	ASTM D4060	30 (mg loss)
Gardner Impact (Dir/Rev)		> 140 lbs.
Solids Content		85% and 90%
Elongation ³	ASTM D412	51%

Viscosity	Clear	Pigmented
PA80	200 +/- 50 cps	200 +/- 50 cps
PA85	300 +/- 50 cps	300 +/- 50 cps
PA90	500 +/- 50 cps	NA

Surface Preparation

Concrete should be clean, dry, and free of grease, oil, paint, curing Application temp. Min sub 0°C, Max 30°C Cure Time¹ (-) (+) Working Time 15(-)25(+) min 22°C and 55% rel. hum Tack Free 45(-)120(+) min 22°C and 55% rel. hum Re-coat Time 45(-)120(+) min 22°C and 55% rel. hum Hard Dry 2(-)6(+) hours 22°C and 55% rel. hum Foot Traffic 24(-)24(+) hours 22°C and 55% rel. hum Light Traffic 48(-)48(+) hours 22°C and 55% rel. hum Full cure 2(-)2(+) weeks 22°C and 50% rel. hum ¹POLYASPARTIC 85% 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 MVB Primer and MVB Top Coat moisture mitigation system (refer to the ResinTek MVB technical data sheet for installation 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 epoxy, it is imperative to read the epoxy manufacturer data sheet on re-coat properties for proper adhesion. Epoxy 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. Wiping properly prepared surface with alcohol will ensure no loose dust particles from the sanding process are present.

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.

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Mixing

Before final mixing, premix parts A and B 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 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

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. 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 achieve a uniform product coating. POLYASPARTIC 85% is self priming and is tack free after approx. 45 minutes for the (-) version under normal conditions (120 minutes for the (+) version). The product can be installed in a two- or three-coat system. We recommend vinyl chips when installing a flake system. We do not recommend installing more than 20-30 mils of the product for the entire system (see Limitations section for more details). Proper tests should be conducted prior application. Contact a ResinTek representative for additional details including coverage rates.

Re-Coat

Do not re-coat without sanding if last coating of the product has been applied for more than 24 hours (at 22°C). 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. It is recommended to use an aggressive solvent to eliminate all the dust after vacuuming and to soften the initial coat prior applying the additional coat. ResinTek recommends using xylene. 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.

Clean Up

Excess liquid A and B material 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.

Detailed Curing Data

Solids	Working Time	Tack Free	Dry Through	Re-Coat
Polyaspartics 85% (-)	15 min	45 min	2 hours	45 min – 24 hours
Polyaspartics 85% (+)	25 min	2 hours	6 hours	2 hours – 24 hours
Polyaspartics 90% (-)	15 min	45 min	2 hours	45 min – 24 hours

Solids	Foot Traffic	Light Traffic	Full Cure	Shore D/24 hours	Shore D/Final
Polyaspartics 85% (-)	24 hours	48 hours	2 weeks	30	70
Polyaspartics 85% (+)	24 hours	48 hours	2 weeks	10	70
Polyaspartics 90% (-)	24 hours	48 hours	2 weeks	50	70

Limitations

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Requires a dry substrate. This product should not be applied to concrete substrates that show high levels of moisture vapor transmission (see "Surface Preparation" section) unless a moisture MVB Primer and MVB Top Coat moisture mitigation system is used. Although this product may be applied in a wide range of thickness, limitations may apply. It is recommended to use 100% solids products and avoid solvent based products for installations beyond normal thickness levels for concrete floor coating systems (beyond 20-30 mils). It is also recommended to do proper testing if a non conventional installation is considered. Everything else being equal, thicker is the film, longer is the curing time. This product may dry extremely fast in a high humidity environment. Temperature will also impact curing time. Curing time may extend significantly at very low temperature levels. Keeping the product stored at room temperature will make the application easier and dry times shorter. ResinTek stands behind the quality of its products. However, ResinTek cannot guarantee results since ResinTek has no control over surface preparation, operating conditions, and application procedures. Clients are solely responsible to test ResinTek'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 ResinTek for further information regarding the limitations of this product.

Available Colors

Clear Gray Tan Others

- + Full color customization available
- + Contact us for additional details

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