

RTE-PA 80

Best Performance, Long Working Time, Quick Curing and Low Odor Polyaspartic

DESCRIPTION

The RTE-PA 80 is a two-component (1A:1B), non-yellowing, polyaspartic floor coating system. The RTE-PA 80 can be used as a clear top coat and as a colored base coat using the Resintek Systems Universal Pigment Pods. The product offers an attractive combination of long working time (25 minutes*) and short curing (tack free of 60 minutes or lower*) allowing the installation of the floor system in a single day as well as a very fast return to service. RTE-PA 80 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. We recommend the utilization of Vinyl Chips in combination with Resintek Systems products. Two- or three-coat systems can be considered.

*Depends on R.H. and temperature levels.

TYPICAL USES

The chemical and mechanical properties of RTE-PA 80 provide excellent results for several applications. Note that the smell may not be suitable for all applications depending on tolerance and ventilation.

- Garages
- Other residential applications
- Commercial centers
- Office buildings
- Retail stores
- Manufacturing facilities
- Public facilities including hospitals and schools
- Other commercial uses

BENEFITS

- Best Value in the Resintek Systems Series
- Non-yellowing
- Excellent impact and abrasion resistance
- Easy to use 1A:1B system
- High solids content at ~80%
- Clear top coat, can also be tinted using Resintek Systems universal Pigment Pods for base coat
- Possibility to install base coat and top coat in a single workday
- Cures quickly and reacts at very low temperatures (below -10°C /14°F)
- Ideal for exterior applications
- Long 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

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Application Data

Mix Ratio	1A:1B	
Packaging	2 US gallon kits (2 x 3.78L)	
Color	Clear	
Solids Coverage / US GAL	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.	
Application Temperature	Min -10°C / 14°F , Max 30°C / 86°F	
Cure Time	22°C / 72°F and 50% Rel. Hum.	
Working time	25 min	
Tack Free	60 min	
Recoat	60 min - 24 h	
Dry Through	5 h	
Foot Traffic	24 h	
Light Traffic	48 h	
Full Cure	2 weeks	
Pot Life	250 ml	20 min
	Larger Volume	30 min

Technical Properties

Hardness ASTM D2240 Shore D at maturity	70
Abrasion (1000 cycles) ASTM D4060	<45 mg loss
Pull Off Test ASTM D4541	≈3 Mpa
Solids Content	80%
Viscosity	200 +/-50 cps
VOC Content	209 g/l
Tensile Strength ASTM D412	>3500, <5000 psi
DE 500 hr ASTM 3424	<2.0
Gardner Impact (Dir/Rev)	>140 lbs

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 Resintek Systems MVB moisture mitigation system could be considered system (refer to the Resintek Systems 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).

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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 Resintek Systems 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 to an existing Resintek Systems flake flooring system that has been cured for more than 24 hours (at 22°C / 72°F), the floor surface should be sanded properly until a matte appearance is reached above and between the flakes. To achieve this result, we recommend the use of a sander equipped with a sponge pad which will follow the profile of the surface and allow the sandpaper to reach the low points between the flakes. It is necessary to sand in a multidirectional way. Repeat until a matte finish is achieved on the entire floor. It is also necessary to use xylene to remove all dust after sanding and to soften the existing layer so that it can bond with the new layer. The use of xylene

for this task is mandatory as it will soften the previous coat for better adhesion. The xylene must be completely evaporated before applying the next coat. If the product is applied over an existing Resintek Systems 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 Resintek Systems PA 80. 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. Once cured, the base coat with the flakes should be scraped and cleaned after appropriate hardness is reached prior applying the top coat.

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Mixing

Clear Top Coat

Before final mixing, pre-mix part A at low speed using a Jiffy® or an Exomixer® mixer blade. Mixing should be done until the color is uniform. If a metal pigment system is being considered, it is imperative to read the Resintek Systems Metallic Pigments data sheet for mixing times as well as application advice.

Then, using a Jiffy® or an Exomixer® mixer blade, 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 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.

Colored Base Coat

Use one Resintek Systems Universal Pigment Pod per gallon of Resintek Systems PA 80 Part A. Before final mixing, pre-mix part A at low speed with the Resintek Systems Universal Pigment Pod. Mix until the color is perfectly uniform using a mixer at low speed.

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. There is no need to rebalance the mixing ratios to compensate for the volume of part A that will exceed its part B counterpart once the pod has been poured into the part A. 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 air entrapment. It is recommended to activate the mixer in the

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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 scrap sides and bottom of mixing container so no unmixed material remains. Only mix the quantity of product required depending on the pot life and the working time required.

Application

Best results will be obtained between -10°C / 14°F and 30°C / 86°F, with a relative humidity of less than 80%. This product will also cure at temperatures well below 0°C / 32°F. 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 to concrete surfaces. 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:

We recommend Vinyl Chips when installing a flake system. Do not exceed a thickness of 30 mils for the entire system as solvent entrapment or lingering odors may occur following the installation. The color of the base coat should match the type of flake blend used. With that regards, Resintek Systems has made recommendations in Vinyl Chips section of this document.

It is also possible to use the Resintek Systems PA 80 as a protective coat over epoxy. In addition to the superior chemical resistance and cleanability, the Resintek Systems also provides additional UV protection that will significantly slow the yellowing of epoxy over time. When used as a protective layer on epoxy, a thickness of 10 mils is recommended. Proper tests should be conducted prior application. Contact a Resintek Systems representative for additional information.

2-Coats System		3-Coats System		
Base Coat	Top Coat	Base Coat 1	Base Coat 2	Top Coat
8-13 mils	8-13 mils	4-9 mils	4-9 mils	8-13 mils

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Recoat

If the product is applied to an existing Resintek Systems flooring system that has been cured for more than 24 hours (at 22°C / 72°F), the floor surface should be sanded properly until a matte appearance is reached above and between the flakes. To achieve this result, we recommend the use of a sanding machine equipped with a soft sanding pad which will follow the profile of the surface and allow the sandpaper to reach the low points between the flakes. It is necessary to sand in a multidirectional way. Repeat until a matte finish is achieved on the entire floor. It is also necessary to use xylene to remove all dust after sanding and to soften the existing layer so that it can bond 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 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 Resintek Systems MVB moisture mitigation system is used. Do not exceed a thickness of 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 non conventional 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.

In the event that dew point conditions lead to condensation persisting above the concrete surface, and for which the grinding process fails to eliminate this condensation, it is crucial to thoroughly dry the surface before installation. Neglecting this step may result in shortened working times and/or issues with adhesion.

Resintek Systems stands behind the quality of its products. However, Resintek Systems cannot guarantee results since Resintek Systems has no control over surface preparation, operating conditions and application procedures. Clients are solely responsible to test Resintek Systems products to determine if they perform as expected. Although Resintek Systems 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 Resintek Systems.

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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 Resintek Systems 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

Resintek Systems Universal Pigment Pods