

## RTE – 120 Crystal Clear

100% Solids, High Performance Epoxy

### Description

The 120 Crystal Clear Epoxy is a 100% solids two-component (2:1) epoxy floor coating system which is VOC-free and virtually odor free. This product possesses superior mechanical and chemical properties best suited for industrial, commercial and residential applications, both life and working time. The 120 Crystal Clear Epoxy has been designed as a topcoat epoxy, but it is self-priming. For heavy traffic applications, we recommend using ResinTek's EPOXY PRIMER prior the installation of the 120 Crystal Clear Epoxy. The 120 Crystal Clear Epoxy formulation is based on a high-performance cycloaliphatic polyamine technology displaying outstanding properties and superior aesthetic finish.

### Uses

The 120 Crystal Clear Epoxy provides excellent resistance for the most demanding applications:

- + Industrial, commercial and residential uses
- + Metallic systems
- + Manufacturing facilities
- + Warehouses
- + Commercial centers
- + Office buildings
- + Retail stores
- + Parking 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 (65 minutes)
- + 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 (fish eyes)
- + 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 3.78L) 15 US gallon kit (3 x 18.9L)	
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	
Substrate temp.	Min 16°C, Max 30°C	
Cure Time		
Working time	65 min	22°C and 55% rel. hum
Tack Free	10 hours	22°C and 55% rel. hum
Recoat Time	10-24 hours	22°C and 55% rel. hum
Dry Through	14 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

### Technical Properties

Hardness, Shore D	ASTM D2240	80	
Abrasion (1000 cycles)	ASTM D4060	67	mg
Pull-Off Test		≈ 3	Mpa
Elongation	ASTM D412	9	%
Tensile Stress	ASTM D412	7700	PSI
Viscosity	Clear	Color	
	800 +/-50	900 +/-50	cps
Solids Content	100%		

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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 MVE PRIMER and MVE TOP COAT moisture mitigation system (refer to the MVE PRIMER and MVE TOP COAT 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 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 with alcohol prior applying the 120 Crystal Clear Epoxy. 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 scraped 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. 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 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 120 Crystal Clear Epoxy 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. If there is a significant presence of pinholes after applying the first coat due to the porosity of the concrete, sandblast and plug the pinholes with epoxy gel.

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

For high traffic applications, it is recommended to use ResinTek's EPOXY PRIMER before installing the 120 Crystal Clear Epoxy. The EPOXY PRIMER will seal the slab and display higher flexibility. A thickness of 4-6 mils is recommended for the EPOXY PRIMER. ResinTek's EPOXY PRIMER cures within 4 hours under normal conditions while proving a working time of 45 minutes (contact us for more details about ResinTek's EPOXY PRIMER).

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

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### 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.

### 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 a MVE PRIMER AND MVE TOP COAT 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.

ResinTek stands behind the quality of its products. However, ResinTek cannot guarantee final 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

#### Standard Color Chart



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

#### Metallic Color Chart



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

### ResinTek

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