

100% Solids Epoxy UV

RTE-100 UV

100% Solids, High Performance providing Excellent UV Resistance

Description

The 100% SOLIDS EPOXY UV is a 100% solids two-component epoxy floor coating system which is VOC-free and is virtually odor free. The product is translucent and displays an excellent resistance to UV irradiation (excellent color retention over time) best suited for residential and commercial applications. It possesses superior mechanical and chemical properties as well as a long pot life and working time. Ideal for metallic systems. It can also be used as a topcoat on RESINTEK UV products (see section, CASTING APPLICATIONS). The 100% SOLIDS EPOXY UV has been designed as a topcoat epoxy, but it is self-priming. The 100% SOLIDS EPOXY UV formulation is based on a high-performance cycloaliphatic polyamine technology displaying outstanding properties and superior aesthetic finish.

Uses

The 100% SOLIDS EPOXY UV provides excellent resistance for the most demanding applications:

- + Commercial, residential, and industrial uses
- + Metallic floors
- + Commercial centers
- + Office buildings
- + Food/beverage processing and preparation plants
- + Pharmaceutical companies
- + Furniture, Wood crafting
- + Retail stores
- + Manufacturing facilities
- + Warehouses
- + Parking garages
- + Public facilities including hospitals and schools.
- + Casting applications

Advantages

- + Offering one of best UV resistance in the industry.
- + Potential for LEED eligibility
- + Easy application with long pot life and working time (60 minutes)
- + Ideal for metallic epoxy systems
- + High resistance to amine blush and contamination (fisheyes)
- + Excellent for letting out bubbles, even for thick layers.
- + Impermeability / low moisture sensitivity
- + High density of the product prevents dirt penetration resulting in low maintenance post application.
- + Environment friendly (100% solids, VOC-free and no solvent)
- + Virtually odor free
- + Good elongation and excellent abrasion resistance
- + Superior mechanical and chemical properties

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Application Data

Technical Properties

Hardness, Shore D	ASTM D2240	80
Pull-Off Test		~3 Mpa
Elongation	ASTM D412	7%
Tensile Stress	ASTM D412	8000 psi
DE 500 hr	ASTM 3424	5
Solids Content		100%
Viscosity	Clear	800 +/- 50 xps

Mix Ratio 2A:1B
 Packaging 3 US Gallon Kits (3 x 3.78 L)
 15 US Gallon Kits (3 x 18.9 L)
 Color Clear Only

Solids Coverage/US Gal

Mils	Sq. Ft.
8	200
10	160
12	133
30	54
40	40
50	32
1/8	13*
1/4	6*

Shelf Life: One year, in original unopened factory pails under normal storage conditions
 Substrate temp. Min 60.8°F, Max 86°F

Cure Time

Working Time	60 min	71.6°F and 55% rel. hum.
Tack Free	9 hours	71.6°F and 55% rel. hum.
Recoat Time	9-24 hours	71.6°F and 55% rel. hum.
Dry Through	13 hours	71.6°F and 55% rel. hum.
Foot Traffic	24 hours	71.6°F and 55% rel. hum.
Light Traffic	48 hours	71.6°F and 55% rel. hum.

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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 TOPCOAT moisture mitigation system (refer to the MVE PRIMER AND MVE TOPCOAT technical data sheet for installation details).

Surface must be prepared mechanically 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 flooring 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 prior to applying the 100% SOLIDS EPOXY UV. 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 sanded 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.

Mixing

Before final mixing, pre-mix parts A at low speed.

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.

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Application

Apply only when air and floor temperature is between 16-30°C and the relative humidity is less than 85%. The product has been especially designed to adhere to concrete surfaces.

The 100% SOLIDS EPOXY UV 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.

We recommend the application of one base coat and one topcoat for a 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).

We recommend the CHIPS UNLIMITED vinyl chips when installing a flake system. Proper testing should be conducted prior to application.

Casting Applications

For casting applications, the 100% SOLIDS EPOXY UV is recommended as a topcoat. It is used along with RESINTEK UV products. Its transparency and viscosity allow pouring up to 1/4" and provides a smooth, crystal clear, bubble-free surface ideal for art and hobby applications. Like concrete floor applications, make sure the surface is clean and no contaminants are present before applying. It is best to use a serrated squeegee for the application. When mixing parts A and B, avoid mixing at high speed to minimize air entrapment. During installation, avoid excessive handling of the product in order to limit the entrapment of air in the film. Air entrapment can affect the appearance of the surface during the curing process. Refer to the RESINTEK UV products Data Sheets for further details including recoat windows.

Recoat

Do not recoat without sanding if the 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.

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Clean Up

Excess material (A and B) should be mixed together and allowed to cure. Cured products may be disposed of without restriction. Uncured material should be stored in a suitable and sealed container and may be disposed of 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 TOPCOAT 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.