RESSI EPO CLEAR COAT

Low Viscosity High Gloss Crystal Clear Floor Coating

RESSICHEM®
adding life and value to your property

Ressi EPO Clear Coat is a Versatile Clear High Gloss Crystal Clear Epoxy Floor Coating suitable for a variety of substrates such as concrete, metal, wood, Fiber Glass and a variety of other substrates. It can easily be used as a primer (where vapour barrier is required), a base coat or as a topcoat. A Variety of Aggregates and Pigments are compatible with **Ressi EPO Clear Coat**. **Ressi EPO Clear Coat** is made from Bisphenol A Based Clear Resin and a cycloaliphatic transparent amine based curing agent specially formulated for floor application.

USES

Ressi EPO Clear Coat is commonly employed to produce seamless flooring solutions across various industrial and residential settings. Its applications range from manufacturing plants, warehouses, aircraft hangars to commercial kitchens and residential garages. By incorporating elements like color Quartz or paint chips, it can also serve decorative purpose. Additionally, it can be utilized as a binder for clean, kiln decorative rock, or when mixed with aggregate, it can be utilized as mortar for overlays or concrete repairs. **Ressi EPO Clear Coat** serves as a robust high-build concrete sealer suitable for interior use, offering superior performance over various other coatings like decorative concrete or acid-stained floors.

ADVANTAGES

- ✔ 100 % Solids
- ✔ Chemical Resistant
- ✔ High Strength
- ✔ Water Clear or Pigmented
- ✔ Low Odor
- ✔ High Build
- ✔ Superior Adhesion

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PRE-INSPECTION & SURFACE REQUIREMENTS

Prior to commencing any work, it is essential to inspect the concrete substrate thoroughly. The surface must be thoroughly cleaned, free of grease, paint, oil, dust, curing agents, or any other foreign substances that could hinder proper adhesion. The concrete should exhibit a minimum strength of 2500 psi and possess a texture similar to 30-grit sandpaper, ensuring porosity and the ability to absorb water. A curing period of at least 28 days is mandatory for all concrete installations. Furthermore, the relative moisture content within the concrete should not exceed 5% Prior to any application.

It is essential to test the existing concrete slab to ensure the absence of efflorescence or elevated levels of alkalinity. Alkalinity, indicated by a high pH reading, denotes a non-neutral environment. Elevated alkaline levels can lead to efflorescence, where salts migrate through the cement, hindering the adhesion of **Ressi EPO Clear Coat**. Common testing methods involve the utilization of wide-range pH paper or tape to ensure pH readings fall within the range of 5-9, promoting optimal adhesion. However, it's crucial to acknowledge that concrete alkalinity testing only reflects present conditions and cannot forecast long-term behavior.

Calcium chloride tests are Important for determining concrete's moisture content before epoxy flooring installation. To obtain accurate readings, the concrete surface must be free from any grease, oil, curing agents, etc.

Failure to adhere to these guidelines or not adhering to international standards prior to the application of Epoxy Coatings over concrete can result in product delamination, discoloration, blistering, or complete coating system failure. It is the responsibility of the applicator to conduct thorough testing.

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SURFACE PREPARATION

Over Concrete Surfaces: Shotblasting or diamond grinding stands as the favored technique for concrete preparation. Effective surface preparation aims to attain a smooth, porous, and consistent surface like 50 grit sandpaper, facilitating optimal product absorption and bonding.

Over Existing Epoxy Flooring: Smooth the surface using a floor buffer and 100 grit sandpaper. Clear away any debris and cleanse with acetone immediately prior to applying the new coat. Always conduct a trial on a small section to verify adhesion before proceeding with the full application.

As a coating: Prepare each component separately. Combine 2 parts of A with 1 part of B, by volume, in a clean container. Thoroughly mix using a low-speed (400-600 rpm) drill motor for 3-4 minutes, ensuring to scrape the sides and bottom of the container during mixing. Once mixing is finished, transfer the mixture from the container within 5 minutes to prevent the epoxy from generating heat. Immediately spread the mixture onto the floor; spreading it out will extend the working time (25-30 minutes at 22 °C).

As an Epoxy Mortar: Combine 2 to 5 parts of a washed and kiln-dried aggregate with 1 part of mixed epoxy material, by volume, and blend until consistent uniformity is achieved. The ratio of aggregates and Epoxy can be adjusted further as per the workability requirements of the job site.

APPLICATION

As a primer: It is possible to use Ressi EPO Clear Coat as a primer and moisture barrier prior to the application of subsequent Epoxy Coats.

Over Cementitious overlay: The initial coat should be applied tightly using a flat-edged trowel and then back rolled for optimal adherence. Apply at least 300 ft^2/gal to reduce material outgassing. Additional coats can be applied to achieve a higher build.

As a Coating: Apply the epoxy floor coating within 24 hours of applying the primer coat. Immediately after mixing, spread a strip of the batch along the edges where precision is needed, using a brush or weenie roller. Pour the remaining material near this area and distribute it evenly using a trowel or squeegee, then back roll it with a 1/4" or 3/8" non-shedding nap or mohair roller cover. Utilizing a notched trowel or squeegee can help maintain thickness consistency, while a spiked roller can release trapped air and minimize bubbles. Depending on the desired appearance, thickness, chemical resistance, and abrasion resistance, apply 1 to 2 coats. To create a non-skid surface, scatter and/or back roll washed and kiln-dried aggregate into the coating. We recommend using High Grade Silica Sand, Quartz Powder or aluminum oxide.

For an epoxy mortar: Prepare the area by priming it with Ressi EPO Clear Coat or alternatively using Ressi EPO Primer by Ressichem (medium grit sand can be scattered into this coat to enhance adhesion). Within 24 hours, remove any excess sand and apply the prepared mortar using a trowel.

Drying time: You can apply a recoat once the surface is fully dry to the touch or within approximately 12 hours, but it should not exceed 24 hours. If the recoat time has passed, lightly sand the surface, and wipe it clean with acetone before applying the next coat. Light foot traffic may be allowed after 24 hours, light vehicle traffic after 72 hours, and heavy traffic after 7 days. These timeframes are based on an average temperature of 22 degrees Celsius and 50% humidity. Lower temperatures will extend drying times.

LIMITATIONS

Refrain from applying the product when temperatures fall below 10°C or rise above 40°F. Alternatively the product can be cooled in an ice bath or cold water if needed.

Avoid leaving the mixed product in the bucket for an extended period, as it may become excessively hot and unusable.

Do not apply over concrete exhibiting high moisture values above 5%

This product is suitable for interior use unless safeguarded by a pigmented UV resistant coating.

Do not apply if ambient humidity levels exceed 85%, the temperature remains less than -15°C above the dew point, or if rainfall is anticipated within 24 hours.

Ensure that concrete has been adequately cured for a minimum of 28 days before application.

Exercise caution when adding solvents like acetone to thin the product, as it may render it combustible or flammable; take necessary precautions in the presence of sparks or open flames.

If thinning with a solvent is necessary, ensure the product is applied thinly (at least 300 sq. ft/gal) to facilitate solvent evaporation and promote proper curing.

PACK SIZE

Ressi EPO Clear Coat is available as follows:

1.5 KG:	Part A 1 KG Part B 500g
15 KG:	Part A 10 KG Part B 5 KG
30 KG:	Part A 20 KG Part B 10 KG

SHELF LIFE

12 months from the date of manufacture when stored under warehouse conditions in original unopened packaging. Extreme temperature / humidity may reduce shelf.

HEALTH AND SAFETY

Dispose containers of the materials as per local laws, rules, and regulations. Use gloves, safety masks and other safety apparel as per health and safety laws. For further assistance, please refer to the MSDS of the product for further health and safety information.

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TECHNICAL DATA

Property	Test Method	Result
Appearance Part A	Visual	Low Viscosity, Clear Liquid
Appearance Part B	Visual	Low Viscosity, Clear Liquid
Mix ratio (Part A : part B)	Theoretical	100 : 50
Mix Density	ASTM D2196	1.05 g/cc
Coverage per kg material @ 1 mm thickness	Theoretical	9 SFT
Flash Point	ASTM D93	> 126°C
Pot Life (300g mix) @ 30°C	–	30 – 40 minutes
Gel Time	–	2 hours
Hardening time	–	36 hours
Full Cure	–	7 days
Flexural Strength (MPa)	ASTM D790	46.1 @ 7 Days
Compressive Strength (MPa)	ASTM D695	102 @ 7 Days

Typical Results under laboratory conditions

Note: At 40°C gel time will be reduced to half, in case of increased temperatures, pouring should be planned accordingly.

NOTE:

If printed packaging not available, neutral packaging with label. Lot number and manufacturing date to be stamped at the back of each packaging.

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TECHNICAL DATASHEET RESSI EPO CLEAR COAT