RESICOLOR 421/2

HIGH CHEMICAL RESISTANCE EPOXY COATING

Colored epoxy paint based on unmodified liquid epoxy resins, polymerised with cycloaliphatic amines, featuring good mechanical strength and excellent chemical resistance.
The product, free from solvents, plasticizers and tar derivatives, has been tested according to UNI EN ISO 16000-6 "Analysis of airborne pollutants dispersed in the workplace", and has been validated by the CATAS accredited laboratory according to the standards of the American Conference of Governmental Industrial Hygenists (ACGIH) with reference to the TLV-TWA threshold limit values for such use.
RESICOLOR 421/2 satisfies the requirements of UNI 11021 "Products and systems for painting environments in the presence of food" and complies with the requirements of the HACCP hygienic self-control system.
The product is CE-marked according to the standard UNI EN 13813.

Areas of use

Finishing with high chemical resistance of multilayer epoxy floors such as MULTIMIX and RINFOMIX and floors based on low thickness epoxy resin mortar screeds (0,8-1,0 cm) such as STRATOMIX.
RESICOLOR 421/2 is successfully applied in the following environments:

- Chemical and pharmaceutical industry;
- Textile and paper industry;
- Galvanic industry, tanning, accumulators.

Thanks to its excellent resistance to wear, combined with a multilayer floor, it constitutes an excellent coating for production departments and warehouses in industry and logistics.
This finish is particularly suitable in the food industry thanks to its impermeability, compactness and chemical resistance towards most food products and their by-products.
A surface coated with RESICOLOR 421/2 avoids the formation and accumulations of dirt and is easy to clean and decontaminate with specific detergents.

Features

RESICOLOR 421/2 forms a hard, waterproof coating which protects surfaces from deterioration caused by contact with aggressive chemical substances.
Contact with acid solutions can produce a change in the color or tone of the coating: this phenomenon is a purely aesthetic fact which has no influence on its chemical resistance and mechanical properties.
It has high mechanical resistance to wear, scratch and impact and guarantees excellent adhesion to most substrates if correctly prepared.
RESICOLOR 421/2 hardens by polyaddition reactions, without release of secondary byproducts and therefore with very low shrinkage; there is the possibility of both low and high thickness application, with smooth or non-slip finish; the hardening process is quite fast and the return to service time is about 48 - 72 hours after application (low temperatures require longer hardening times).

How to use

Preparation of the support
The surfaces to be coated must be compact, clean, dry (<5% humidity) and crack, crumbly part and cement grout-free. For better adhesion the surface needs to be slightly roughened using sand-paper, diamond or silicon carbide grinder or acid wash; then remove any trace of dust and dirt using an aspirator.
Cement supports affected by rising damp must be treated with two coats of RESICOL 118 (vapour barrier).
Very porous concrete or surfaces with cracks and omega cavities need to be levelled in advance with RESICOL 100, epoxy adhesive.
Application of the adhesion primer
Apply RESICOL 160, highly penetrating epoxy primer which enhance adhesion on very porous materials, by roller or brush; the consumption is about 200-300 g/m^2. Wait at least 24 hours before applying RESICOLOR 421/2.
Alternatively, use RESICOLOR 451, waterborne epoxy paint, diluted with water, 5–10%.
Metals need sandblasting to SA 2.5 degree or alternatively grinding with metal brushes. Then apply RESICOLOR 425 specific primer.
Preparation of the support for multilayer floorings
Apply one or two layers of FONDO RASANTE R82/1 and then saturate the surface with quartz sand broadcasting.
Preparation of the product
Pour component B into component A and mix at slow speed for 3–5 minutes using a mixer drill with helix/spiral reducing as much as possible air incorporation; during this operation, carefully scrape also the bottom and the sides of the bucket.
In the event of partial use of the package, the two components must be carefully weighed in weight following the ratios on the label.
Application
Depending on the type of finish required, the product can be applied with a spatula, brush, roller or airless spray, in one or two coats; with regards to consumption, please refer to the table below.

For the realization of small strips on vertical supports, the addition of a special thixotropic rheological additive is recommended.

Notes
The product is not applicable on surfaces that are not completely dry. Apply to concrete only after it has fully cured. Do not apply on fine mortar.
Packages are pre-weighted: in case of partial use of the package, components must be dosed respecting the A+B ratio by weight reported on the label and must not be dosed by volume.

Technical characteristics

Adhesion to concrete	Cohesive failure of the substrate
Adhesion to steel (*)	> 2,5 N/mm^2
Hardness (Shore D)	> 65
Water absorption (thickness 300 µm)	<0,1%
Wear resistance **Taber test (pietra CS 17, 500 g, 1000 cicli)**	50 mg
A + B blend viscosity	1000 ÷ 1500 cP
Density (Comp. A)	1,43 ± 0,05 kg/dm^3
Density (Comp. B)	1,02 ± 0,05 kg/dm^3
A + B blend density	1,25 ± 0,05 kg/dm^3
Mix ratio A + B	100 + 30

(*) This value refers to the product applied subsequently to RESICOLOR 425.

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Chemical resistance				
Exposition time [days]	**7**	**14**	**21**	**28**
Hydrochloric acid 20%	0 - A	0 - A	0 - A	0 - A
Sulfuric acid 50%.	0 - A	0 - A	0 - A	0 - A
Nitric acid 10%	0 - A	0 - A	0 - A	0 - A
Phosphoric acid 20%	1 - B	1 - B	1 - B	1 - B
Acetic acid 5%	0	0	0	0
Lactic acid 10%	0	0	0	0
Sodium hydroxide 50%	0	0	0	0
Ammonia 25%	0	0	0	0
Diesel fuel	0	0	0	0
Ethyl alcohol	0	0	0	0
Ethyl acetate	0 - R	0 - R	0 - R	0 - R
Acetone	0 - R	1 - R - A	1 - R - A	1 - R - A
Xylene	0	0	0	0
Degree of surface alteration:	*0: no effect;* *1: slightly affected surface;* *2: damaged surface;* *3: heavily damaged surface;* *A: slightly color alteration;* *B: swelling;* *R: softening.*			

RESICOLOR 421/2 does not resist contact with brake oil.

Use and hardening times

Following mixture, the reaction between the two components takes place immediately. Processing time is therefore limited and depends on temperature.

Temperature	Pot life	Tack free	Overcoatability
10°C	70 minutes	24 hours	36 hours
20°C	30 minutes	12 hours	24 hours
30°C	20 minutes	8 hours	12 hours

Application with temperatures lower than +5Cº and higher than +30Cº is not recommended.
Full hardening takes place after seven days with a temperature not lower than 10 C°.
After 48 hours from application, it is necessary to roughen the surface with abrasive tools (120 grain) before proceeding with a second layer.

Consumption

Type of coating	Application system	Consumption
Multilayer	Spatula	500÷900 g/m^2 single layer
Epoxy screed	Spatula, two layers	500 g/m^2 first layer
		400 g/m^2 second layer
Painting	Roller	200÷500 g/m^2
	Airless spray	300÷500 g/m^2

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Packaging and storage

Available in 13 kg and 26 kg packages (A + B).
If stored in its original and sealed package, the product remains unaltered for 18 months if kept in closed and protected environment with a temperature between 10 and 30 °C.

Cleaning of tools and health precautions

Before handling, always consult the product safety data sheet.

To clean tools use solvents such as RESISOLV 111, RESISOLV 196 or alcohol.
Epoxy resins and hardening agents may cause irritations: please avoid any contact with the skin and especially with the eyes and ensure proper ventilation during use.
Wear gloves, protective suit, goggles or protective visor. People who have to work with epoxy resins for long periods are advised to use protective creams.

In case or contact with the skin, immediately clean with a cloth soaked in denatured alcohol and wash with water or neutral soap or handwash paste. Then use a nourishing cream.
In case of contact with eyes or mucosa, do not use alcohol. Rinse immediately with running water and neutral soap for 10/15 minutes, then seek medical advice.

Do not rinse with solvents.

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