

**RESIMIX s.r.l.**

Via A. Pacinotti, 12/14 - 36040 BRENDOLA (VI)

Tel. 0444-400773 r.a. - telefax 0444-601662

www.resimix.com - email: info@resimix.com



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RESICOLOR 421/2

HIGH CHEMICAL RESISTANCE EPOXY COATING TO PROTECT CONCRETE INDUSTRIAL FLOORS

Solvent-free epoxy coating for concrete, cement mortar floors and walls. Used as finishing of FINOMIX, MULTIMIX, RINFOMIX, STRATOMIX, ANTIMIX epoxy floorings.
It features high resistance to wear and tear and high chemical resistance.

Areas of use

Recommended for manufacturing departments where high resistance to wear and tear and high chemical resistance are required:

- Mechanical, metallurgical, naval, textile, paper industry;
- Galvanic, tanning, accumulator industry;
- Chemical, pharmaceutical and health industry;
- Inspection pit in garages;
- Inspection pit and floor in railway depot (diesel locomotives);
- Cattle sheds, pigsty;

Protecting tanks made of concrete containing corrosive liquids (to laminate together with glass fabric):

- Security tanks, also for acid and alkaline liquids;
- Waste water treatment plants;
- Sewage tanks and pipeline in cattle sheds;

Features

RESICOLOR 421/2 is a solvent-free hardened using cycle-aliphatic polymerepoxyresin based coating. It creates a hard film with high bending and traction mechanical and wear and tear resistance features and has excellent adhesion to most supports if duly prepared. It results in waterproofing protection for concrete surfaces in contact with low concentrated acid and basic solutions.

- High chemical resistance to most acid and basic chemical reactants;
- Hardening by means of poly-addition resulting in extremely reduced shrinkage;
- Possibility of application with low and high thicknesses;
- Smooth or "orange peel" finishing;
- Fast hardening and commissioning 48 - 72 hours after application;

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 wheel or silicon carbide or acid washing smoothing; 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 surfaces or surfaces with cracks and omega cavities need to be levelled in advance with RESICOL 100, epoxy adhesive.

Application of the adhesion primer

Roller or brush apply RESICOL 160, a highly penetrating epoxy primer which aids adhesion on very porous materials. 200 - 300 g/m² consumption. Wait at least 24 hours before applying RESICOLOR 421/2. Alternatively, use RESICOLOR 451 epoxy varnish in watery emulsion, diluted with 5 – 10% water. Metals need to be sandblasted to SA 2.5 degree or alternatively grinded or treated with metal brush and varnished using RESICOLOR 425 specific primer.

Preparation of the product

Pour component B into component A and blend at slow speed for 3' – 5' using drill with helix/spiral to reduce air inlet as much as possible; 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

Brush, roller or airless spray apply, in at least two layers, with average consumption per layer of 200 - 300 g/m².

Note

This product cannot be applied on surfaces which are not completely dry. Apply on concrete only after it is completely cured. Do not apply on fine mortar.

Packages are weight pre-measured out: in case of partial use of the package, components must be weighed by respecting the A+B ratio on the label and must not be weighed out based on the volume.

Technical characteristics

Adhesion to dry concrete(*)	>8 N/mm ²
Adhesion to steel(**)	> 2,5 N/mm ²
Hardness(Shore D)	75
Taber (500gr, CS 17 stone, 1,000 cycles)	50 mg
Viscosity at 23°C	1900 cP
Specific weight of the mixture	1,48 kg/dm ³
A + B mixture ratio	100 + 25

(*) Adhesion verified on C25/30 class concrete; at these values binding break of the substrate happens.

(**) this value refers to product applied with RESICOLOR 425 primer.

Chemical resistance

Exposure time [days]	7	14	21	28
Hydrochloric acid 20%	0 (lightly opaque ring)	1	1	1
Sulphuric acid 50%.	0 (lightly opaque ring)	0	0	0
Nitric acid 10%	0	0	0	0
Phosphoric acid 20%	1 (lightly swelling)	1	1	1
Acetic acid 5%	0	0	0	0
Lactic acid 10%	0	0	0	0
Sodium hydroxide 30%	0	0	0	0
Ammonia 25%	0	0	0	0
Diesel	0	0	0	0
Ethanol	0	0	0	0
Ethyl acetate	0 (light softening)	0	0	0
Acetone	0 (light softening)	1	1	1
Xylol	0	0	0	0

Surface modification degree:

- 0 : no effect on the surface;
- 1 : impaired surface;
- 2 : damaged surface;
- 3 : greatly damages surface;

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	Time of use (pot life)	Dust free (tack free)	Paintable again after
10°C	70 min	22 hours	24 hours
20°C	30 min	10 hours	14 hours
30°C	20 min	4 hours	6 hours

Application with temperatures lower than +5C° and higher than +30C° is not recommended.

Full hardening takes place after seven days with a temperature not lower than 10 C°.

After at least 48 hours from application have gone by, it is necessary to sand the surface with abrasive retina disc (120 grain), before proceeding with painting.

Consumption

Type of coating	Consumption
Varnishing on smoothed concrete floor	200 g/m ² per layer
Coating on vapour barrier	300 – 400 g/m ² per layer
Wall and tank coating	200 g/m ² per layer
Lamination with glass fabric (tanks)	250 g/m ² per layer

Packaging and storage

Available in 5, 10 and 25 Kg packages (A + B).

If stored in its original and sealed package, the products remains unaltered for 18 months if kept in a closed and protected environment with a temperature between 10 and 30 °C.

Cleaning of tools and health precautions

To clean tools use solvents such as acetone, alcohol, toluene, or RESISOLV 111 or RESISOLV 196.

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 of 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.

The information supplied in this sheet is the result of the best practical and laboratory experiences of RESIMIX, which guarantees its products when used according to the instructions supplied. It is nonetheless up to the customer to ensure the product is suitable for the intended use. The manufacturer declines any responsibility for incorrect use or uses beyond his control. RESIMIX reserves the right to make changes to the data. For any request, please contact the RESIMIX Technical Assistance Office.