

**RESIMIX s.r.l.**

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RESICOL 100

RESICOL 102

THIXOTROPIC EPOXY ADHESIVES FOR STRUCTURAL BONDING AND CONCRETE SMOOTHING

Thixotropic adhesive pastes based on solvent-free epoxy resins and hardened with modified aliphatic and cyclo-aliphatic polyamines mixed with mineral fillers.

Both products can be spatula applied vertically and in the intrados.

RESICOL 102 mainly differs from RESICOL 100 because of increased thixotropy: this property enables increased thicknesses when vertically applied.

RESICOL 100 has increased support wettability and higher compression strength.

Areas of use

- Mending and structural gluing of building materials: concrete, fibre cement, iron, wood, stone, marble;
- Smoothing and stuccoing of surfaces subject to abrasion/erosion;
- Stuccoing the omegas of forming concrete;
- Stiff structural gluing of prefabs in concrete (slabs, pipes);
- Stuccoing the cracks and gluing of the injectors before the injection of RESISYSTEM 310/312 or with REPIKIT 310/312.
- Structural reinforcement of concrete beams by gluing a thin layer of steel (beton placqué) or plating with thin layers of carbon;
- Gluing and lamination of tapes in carbon fibre to reinforce wooden beams.

Features

- Thanks to its high thixotropy, RESICOL 100 adhesive can be vertically applied on thicknesses up to 3 mm and in the intrados with no risk of dripping; RESICOL 102 can be applied on vertical surfaces with thicknesses up to 6 – 7 mm;
- High mechanical compression strength and bending features;
- Excellent adhesion thanks to hardening with no shrinking and excellent compatibility with different building materials: concrete, bricks, stone, wood, steel;
- Good chemical resistance to diluted acid and basic solutions;
- Good resistance to pollution and saline fogs;
- Excellent dielectric properties (low electric conductivity);
- It achieves high mechanical properties only a few hours following application;
- Pre-weighed packages, ready for use.

How to use

Preparation of the support

Smoothing: the surfaces to be coated must be compact, clean (no oil or fat), dry (support damp <5%) and mortar grout and crumbly part-free. For better adhesion the surface must be slightly roughened with sandblasting or sanding; then remove any sign of dust or dirt using an exhauster.

Gluing and mending: in case of gluing or repair of a cracked element, we recommend opening up the crack as much as possible by possibly moving away the parts to be glued (in case of doorstones, steps or non-movable parts); remove the crumbling parts with abrasive disk, brush or scraper and thoroughly clean with vacuum cleaner or compressed air.

Metals must be sanded to SA 2,5 degree or alternatively grinded or vigorously cleaned with metal brush and then treated with RESICOLOR 425 specific primer.

The presence of water has a negative effect on adhesion. Wet foundations must be dried up as much as possible using air or, better, using gas flame.

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, scrape also the bottom and the sides of the container.

Application

Smoothing: apply the material with a steel or nylon palette knife.

Gluing and mending: apply the material on the gluing surface using a knife or trowel in 2 to 4 mm thicknesses based on the surfaces to be glued/joined and moderately press the elements until some adhesive comes out from the sides, then make sure they remain pressed/placed until hardening (6 hours at 20 °C).

Notes

Packages are weight pre-measured out: fully use all components A and B. If you wish to divide the package, products must be weighed by respecting the A+B ratio on the label and must not be weighed out based on the volume

Technical characteristics

	RESICOL 100	RESICOL 102
Compression strength	>95 N/mm ²	>95 N/mm ²
Bending strength	>38 N/mm ²	>30 N/mm ²
Elastic modulus	> 9000 N/mm ²	> 10000 N/mm ²
Adhesion to dry concrete (EN 12188)	> 14 N/mm ²	> 14 N/mm ²
Slant shear strength (EN 12188)	at 50° > 50 N/mm ² at 60° > 60 N/mm ² at 70° > 70 N/mm ²	at 50° > 50 N/mm ² at 60° > 60 N/mm ² at 70° > 70 N/mm ²
Glass transition point (calorimetric method)	ca.53 °C	ca.60 °C
Density	1,95 g/cm ³	2,20 g/cm ³
A + B mixture ratio	100 + 6	100 + 50

Use and hardening times

By pouring B component into A component, the hardening reaction starts: following mixture the time available is limited and it depends on the temperature.

In case of both products the temperature of the support must be of at least 5 °C.

RESICOL 100

Temperature	Use (pot-life)	hardening
10°C	80'	10 h
20°C	60'	6 h
30°C	45'	4 h

RESICOL 102

Temperature	Use (pot-life)	hardening
10°C	70'	9 ½ h
20°C	50'	5 h
30°C	35'	4 h

Consumption

RESICOL 100

Gluing and smoothing: approx. 1.9 – 2 kg/m² for a layer 1 mm thick.

Lamination of carbon materials: 2 – 3 kg/m².

RESICOL 102

Gluing and smoothing: approx.. 2.2 kg/m² for a layer 1 mm thick

Packaging and storage

RESICOL 100 is available in 1kg and 5 kg packages (A + B component).

RESICOL 102 is available in 1.5 kg, 6 kg and 12 kg packages (A + B component).

If stored in its original and sealed package, the products remains unaltered for a year if kept in environments with a temperature between 10 and 30 °C.

Cleaning of tools and health precautions

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 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.