RESIMALTA 205

THIXOTROPIC EPOXY MORTAR FOR MENDING AND RESTORATIONS

Pre-packaged, bi-component, counterbalanced shrinkage, solvent-free, thixotropic mortar based on fluid epoxy resins hardened with cycle-aliphatic amine compounds, selected mineral charges and several additives.

Areas of use

- Mending of concrete, brick and stone structures;
- Restoration of holes and unevenness in cement industrial floors;
- Execution of connecting bases in the corners between walls and floors;
- Restoration of concrete for high chemical protection interventions;
- New layers with medium-high thickness to create new inclinations;
- Restoration of chipped joints in industrial floorings;
- Restoration of corners, steps, low walls, balconies, concrete skirting boards;
- Execution of layered surfaces subject to chemical aggression and mechanical abrasion;
- Hollow filling and scarification due to the formation of armour rust and mechanical action performed by sandblasting machines and bushhammering;

Features

- Very high mechanical resistances;
- High resistance to abrasion and impacts;
- Solvent-free;
- Possibility to carry out low thickness and high resistance restorations;
- Excellent resistance to the aggression of acids, alkali and solvents;
- Excellent adhesion to concrete, bricks, stone, wood, iron following application of RESICOL 115 primer;
- Good waterproofing;
- It hardens with no shrinkage on high and low thicknesses;

How to use

Preparation of the support
The surface to be treated must be clean, healthy, dry and mortar grout and crumbly part-free. Best adhesion is achieved by roughening it by sandblasting.
Application on metals follows careful preparation of the support: remove oils, fats, varnishes and rust by abrading or sandblasting with white metal (SA2 – SA 3 degree).
After sand-blasting, vacuum the dust and then apply RESICOL 115 epoxy primer both on the concrete and on the armour rods if they happen to be exposed.

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 bucket; the mortar must be even before application.

Application
Apply the mortar on the primer, layer upon layer, within the times of use (see table) with trowel, palette knife or other suitable tool based on the type of work to be done.
RESIMALTA 205 may be applied with low or high thicknesses with no hardening or shrinkage problems.
In case of thicknesses greater than 3 cm applied on vertical or overhead surfaces we recommend supporting the mortar with a board or formwork until it hardens.

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.
Three essential rules are valid for all bi-component systems: weigh well, carefully mix bottom and walls, observe times of use.

Technical characteristics

Compression strength (1 day)	40 MPa
Bending strength (7 days)	65 MPa
Elastic modulus	about 24000 MPa
Flexural strength (1 day)	10 MPa
Flexural strength (7 days)	25 MPa
Density of hardened mortar	2,04 kg/dm^3
Mixture ratio A + B	100 + 4

Values obtained after 7 days of curing at 25°C.
In the steel adhesion test, failure occurs in the adhesive.

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Chemical resistances

RESIMALTA 205 was tested after 7 days of curing at 23 °C.

Contact time(weeks)	1	2	3	4	5	6	7	8	9	10
Deionized water	+	+	+	+	+	+	+	+	+	+
Seawater	+	+	+	+	+	+	+	+	+	+
10% Sulphuric acid	+	+	+	+	+	+	+	+	+	+
30% Sulphuric acid	+	+	+	+	+	+	+	+	+	+
50% Sulphuric acid	+	+	+	+	+	+	+	+	+	+
70% Sulphuric acid	+	0	0	0	0	0	0	0	0	0
10% Hydrochloric acid	+	+	+	+	+	+	+	+	+	+
10% Nitric acid	+	+	+	+	+	+	+	+	+	+
10% Phosphoric acid	+	+	+	+	+	+	+	+	+	+
10% Acetic acid	+	+	+	+	+	+	+	+	+	+
10% Lactic acid	+	+	+	+	+	+	+	+	+	+
10% Ammonia	+	+	+	0	0	0	0	0	0	0
14% Sodium hypoch.	+	+	+	+	+	+	+	+	+	+
10% Ethanol	+	+	+	+	+	+	+	+	+	+
20% Ethanol	+	+	+	+	0	0	0	0	0	0
Glycerine	+	+	+	+	+	+	+	+	+	+
Premium grade fuel	+	+	+	+	+	+	+	+	+	+

+ = no corrosion
0 = slight decay
- = marked decay

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.

Temperature	Pot-life	Hardening
10 °C	80 min	8 h
20 °C	50 min	6 h
30 °C	25-30 min	4 h

Full hardening is achieved after 7-days of curing at about 23 °C.

Consumption

Primer RESICOL 115: 0.4 – 0.6 kg/m²
The consumption to create a new layer 1 cm thick with RESIMALTA 205 is approx. 20 kg/m².

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Packaging and storage

Available in 10 kg and 25 kg packages (A + B component).
RESIMALTA 205 remains unaltered for at least a year in a dry and sheltered place, at a temperature from +10 °C to +30 °C in its original sealed containers.

Cleaning of tools and health precautions

Before handling the product always consult the safety data sheets.

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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