

ZERO REPAIR MORTARS

Building a sustainable future together

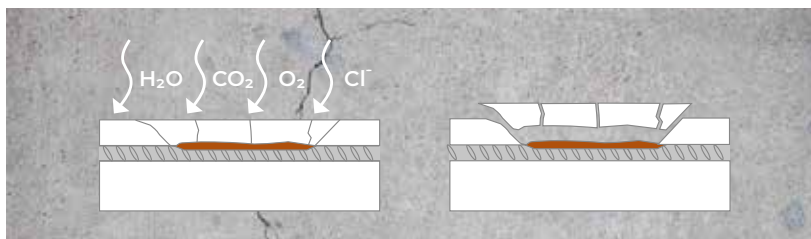




ZERO repair mortars

Crack resistance for higher durability

Every day, buildings are subjected to dynamic stresses that lead, in the long term, to the opening of cracks into concrete elements. These cracks not only cause structural damage but also represent a way for aggressive agents to enter such as **carbon dioxide** and **chlorides** which, combined with water and oxygen action, generate the beginning of **corrosion** phenomena.



CO₂ emissions measured throughout the life cycle of products from the **ZERO line** in 2023 using Life Cycle Assessment (LCA) methodology, verified and certified with EPDs, have been offset through the acquisition of certified carbon credits in support of renewable energy and forestry protection projects. A commitment to the planet, to people, and to biodiversity. For more details on how emissions are calculated and on climate mitigation projects financed through certified carbon credits, visit ZERO.mapei.com.

Thanks to their special formulation, **ZERO repair mortars** have excellent fatigue resistance, which has been proven by tests in external laboratories.



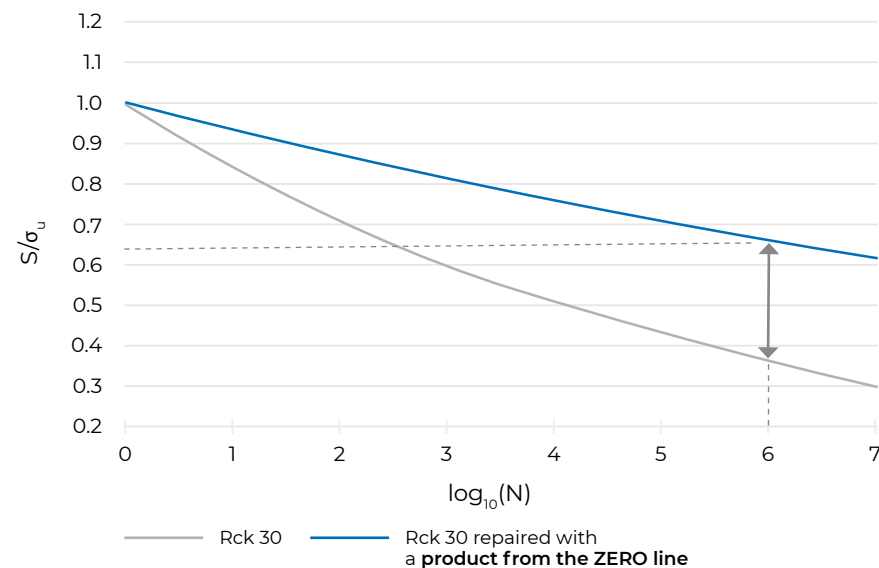
Objectives

- Increase in dynamic flexural strength of repaired concrete elements.
- Increased resistance to cracking.

Test results

- High cracking resistance.
- High fatigue strength.

The graph shows how a mortar from the **ZERO Line**, used to repair concrete, is able to increase its dynamic flexural strength characteristics. Specifically, it can be seen that with the same number of load cycles, the dynamic flexural strength is significantly higher.



Mapefer 1K ZERO

DESCRIPTION

One-component anti-corrosion cementitious mortar
Applied to steel reinforcement to prevent the formation of rust.

USE



Application procedure

approx. **60 Min**
+20°C
Pot life

> 2 mm
Thickness

CHARACTERISTICS



Protection of reinforcing bars

Very low emission of VOC

One-component, ready-to-use mortar

CERTIFICATIONS



Planitop Smooth & Repair R4 ZERO

DESCRIPTION

Structural R4-class, quick-setting, thixotropic, fine-grained cementitious mortar

Suitable for structural repairs and skimming internal and external horizontal and vertical concrete surfaces. Suitable for repairing structures exposed to the air and in permanent contact with water.

USE



Application procedure

approx. **15 Min**
+20°C
Pot life

da/3 mm
a/to 40 mm
Thickness

CHARACTERISTICS



2 products in 1

Applicable at low thickness

Structural restoration

CERTIFICATIONS



Planitop Smooth & Repair ZERO

DESCRIPTION

Quick-setting, R2-class, thixotropic, fine-grained cementitious mortar

Ideal for non-structural repairs and skimming internal and external, horizontal and vertical concrete surfaces. It is suitable for repairing structures exposed to the air and in permanent contact with water.

USE



Application procedure

approx. **15 Min**
+20°C
Pot life

da/3 mm
a/to 40 mm
Thickness

CHARACTERISTICS



2 products in 1

Applicable at low thickness

Natural fine-grained finish

CERTIFICATIONS



Mapegrout 430 ZERO

DESCRIPTION

Fibre-reinforced, fine-grained, thixotropic compensated-shrinkage mortar

It is used to repair the protective concrete layer on deteriorated concrete structures and may be applied with a continuous-feed rendering machine.

USE



Application procedure

approx. **60 Min**
+20°C
Pot life

da/5 mm
a/to 40 mm
Thickness

CHARACTERISTICS



Easy to apply

Also continuous mixing

Natural fine-grained finish

CERTIFICATIONS



MapegROUT Easy Repair ZERO

DESCRIPTION

Thixotropic, resistant to aggressive sulphates, fibre-reinforced, shrinkage-compensated mortar

It is used to repair deteriorated concrete structures, even subject to attack from aggressive sulphates. It may also be applied with a continuous-feed rendering machine.

USE



Application procedure



Pot life



Thickness



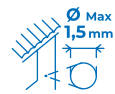
CHARACTERISTICS



Also continuous mixing



Resistant to sulphate aggression



Natural fine-grained finish

CERTIFICATIONS



MapegROUT Hi-Flow ZERO

DESCRIPTION

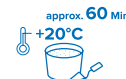
Hi-flow, fibre-reinforced, shrinkage-compensated mortar for concrete repair

Suitable for repairing structures where particular thicknesses and the state of deterioration require the use of high flow mortars. Certified for repairing and anchoring work.

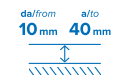
USE



Application procedure



Pot life



Thickness



CHARACTERISTICS



High fluidity



No need of vibration



High mechanical performance

CERTIFICATIONS



MapegROUT Thixotropic ZERO

DESCRIPTION

Thixotropic, fibre-reinforced, shrinkage-compensated mortar

Ideal for repairing horizontal and vertical surfaces on deteriorated concrete structures; may be applied even in heavy thicknesses, without the need for formwork.

USE



Application procedure



Pot life



Thickness



CHARACTERISTICS



Easy to apply



Excellent workability



Structural restoration

CERTIFICATIONS



Mapefill ZERO

DESCRIPTION

Fluid mortar with positive internal tension

Suitable for precision anchoring of machinery or metallic structures and repairing damaged structures that require the use of free-flowing mortars.

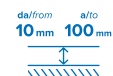
USE



Application procedure



Pot life



Thickness



CHARACTERISTICS



High fluidity



Excellent adhesion



Resistance to dynamic/mechanical stress

CERTIFICATIONS



EVERYTHING'S OK WITH MAPEI

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