

# ZERO REPAIR MORTARS

Building a sustainable future together

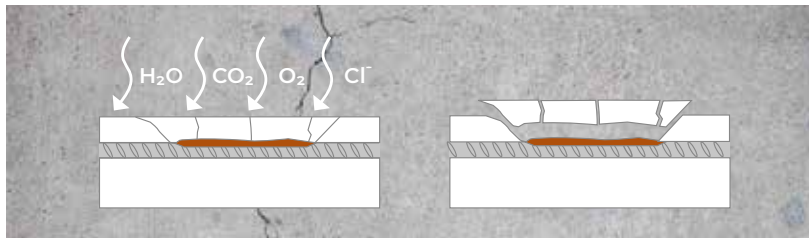




# ZERO repair mortars

## 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.



CO<sub>2</sub> emissions measured throughout the life cycle of products from the **ZERO** line in 2024 using Life Cycle Assessment (LCA) methodology, verified and certified with EPDs, have been offset through the acquisition of certified carbon credits in support of 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](https://ZERO.mapei.com).

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



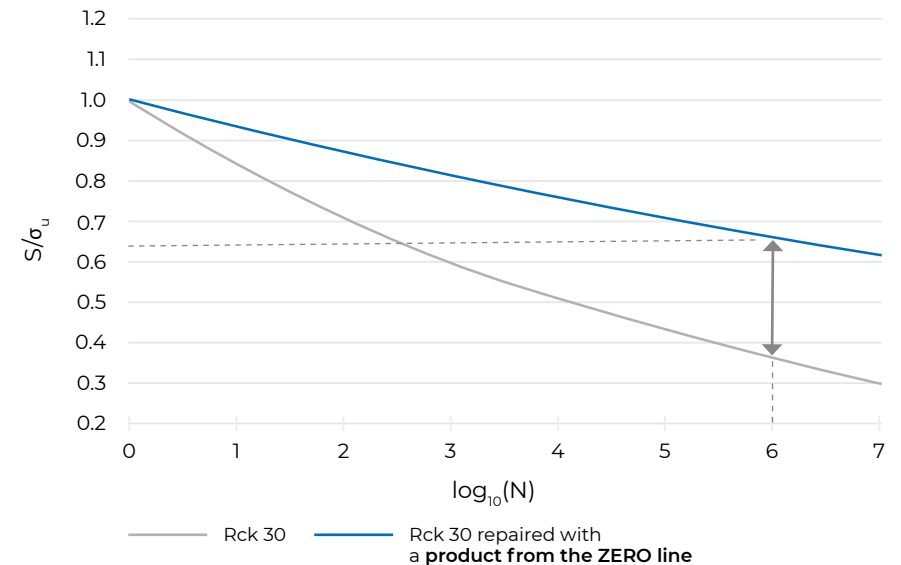
### Objectives

- 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:  Pot life: approx. **60 Min** at **+20°C**  Thickness: **>2 mm** 

**CHARACTERISTICS**

Protection of reinforcing bars  Very low emission of VOC  One-component, ready-to-use mortar 

**CERTIFICATIONS**



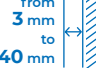
 






# Planitop Smooth & Repair R4 ZERO

**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:  Pot life: approx. **15 Min** at **+20°C**  Thickness: from **3 mm** to **40 mm** 

**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:  Pot life: approx. **15 Min** at **+20°C**  Thickness: from **>3 mm** to **40 mm** 

**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:  Pot life: approx. **60 Min** at **+20°C**  Thickness: from **5 mm** to **40 mm** 

**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: approx. **60 Min** at **+20°C**  Thickness: from **5 mm** to **50 mm** 

**CHARACTERISTICS**

Also continuous mixing:  Resistant to sulphate aggression:  Natural fine-grained finish:  Max **1.5 mm**

**CERTIFICATIONS**



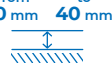
  






# Mapegrout Hi-Flow ZERO

**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: approx. **60 Min** at **+20°C**  Thickness: from **10 mm** to **40 mm** 

**CHARACTERISTICS**

High fluidity:  No need of vibration:  High mechanical performance: 

**CERTIFICATIONS**




  





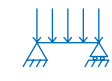
# Mapegrout Thixotropic ZERO

**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: approx. **60 Min** at **+20°C**  Thickness: from **10 mm** to **50 mm** 

**CHARACTERISTICS**

Easy to apply:  Excellent workability:  Structural restoration: 

**CERTIFICATIONS**



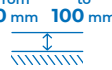
  






# Mapefill ZERO

**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: approx. **90 Min** at **+20°C**  Thickness: from **10 mm** to **100 mm** 

**CHARACTERISTICS**

High fluidity:  Excellent adhesion:  Resistance to dynamic/mechanical stress: 

**CERTIFICATIONS**



# EVERYTHING'S OK WITH MAPEI

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