

Building a  
**SUSTAINABLE**  
future together

**ZERO LINE BY MAPEI**



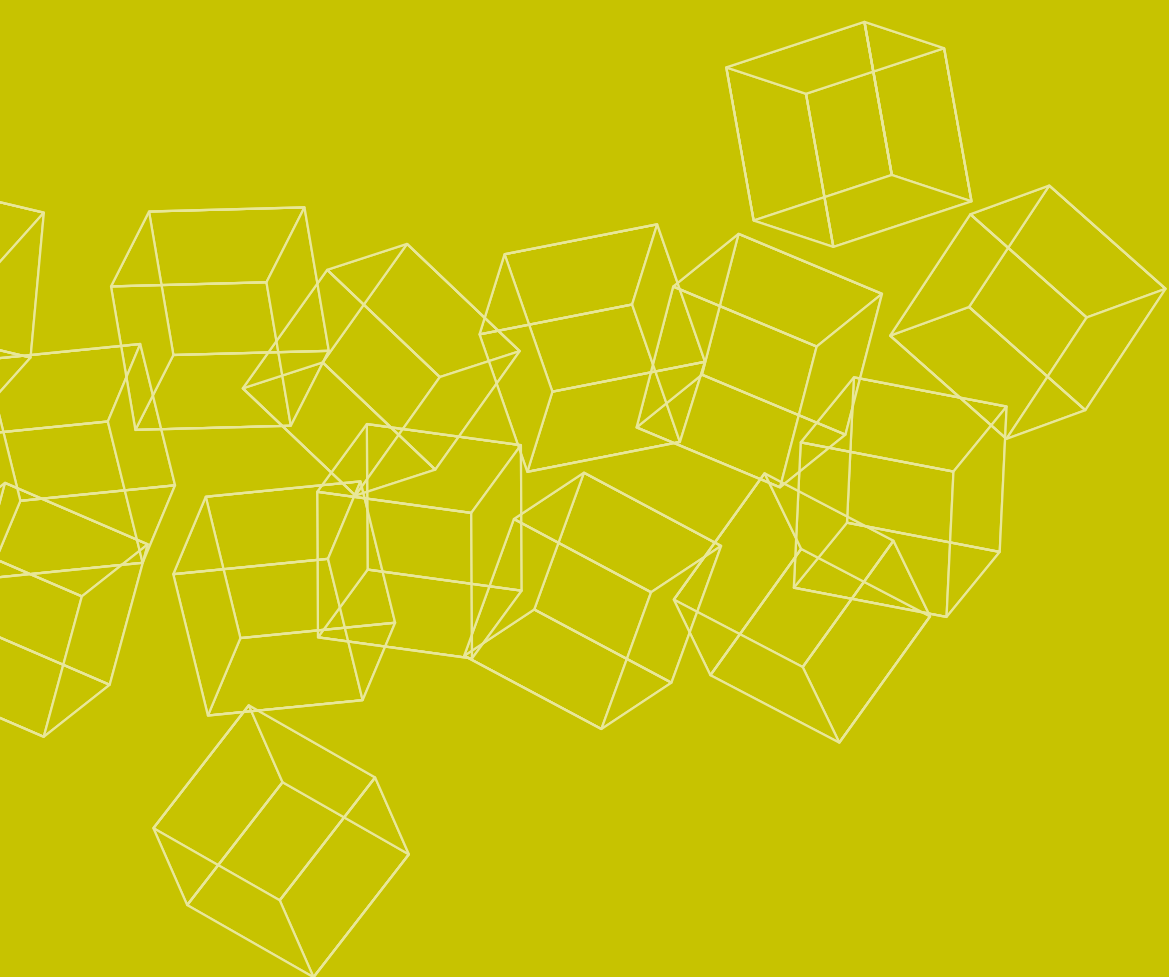
# SUSTAINABILITY

## Mapei approach

**Mapei** was founded more than eighty years ago in Milan, Italy, and since then has been proposing solutions of excellence for chemical products for the building sector all around the world. Its products are used in both the construction of large-scale infrastructures and iconic works of architecture, as well as in the residential sector. A target achieved without ever forgetting that it is only a constant, open and transparent dialogue with our contacts and clients that enables us to truly understand the real needs of the market and to provide **innovative and sustainable responses**.

**Mapei** pursues a **concept of sustainability** that encompasses a host of aspects in terms of living comfort and wellbeing. It firmly believes that the profits of a company should go hand in hand with **ethics, respect** for people and the **creation of value for the territory**.

It has always applied these principles to its strategy.



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## Delivering projects with offset CO<sub>2</sub> emissions

Reduce environmental impact without compromising on performance. That was the idea behind the products from the **ZERO Line by Mapei**.

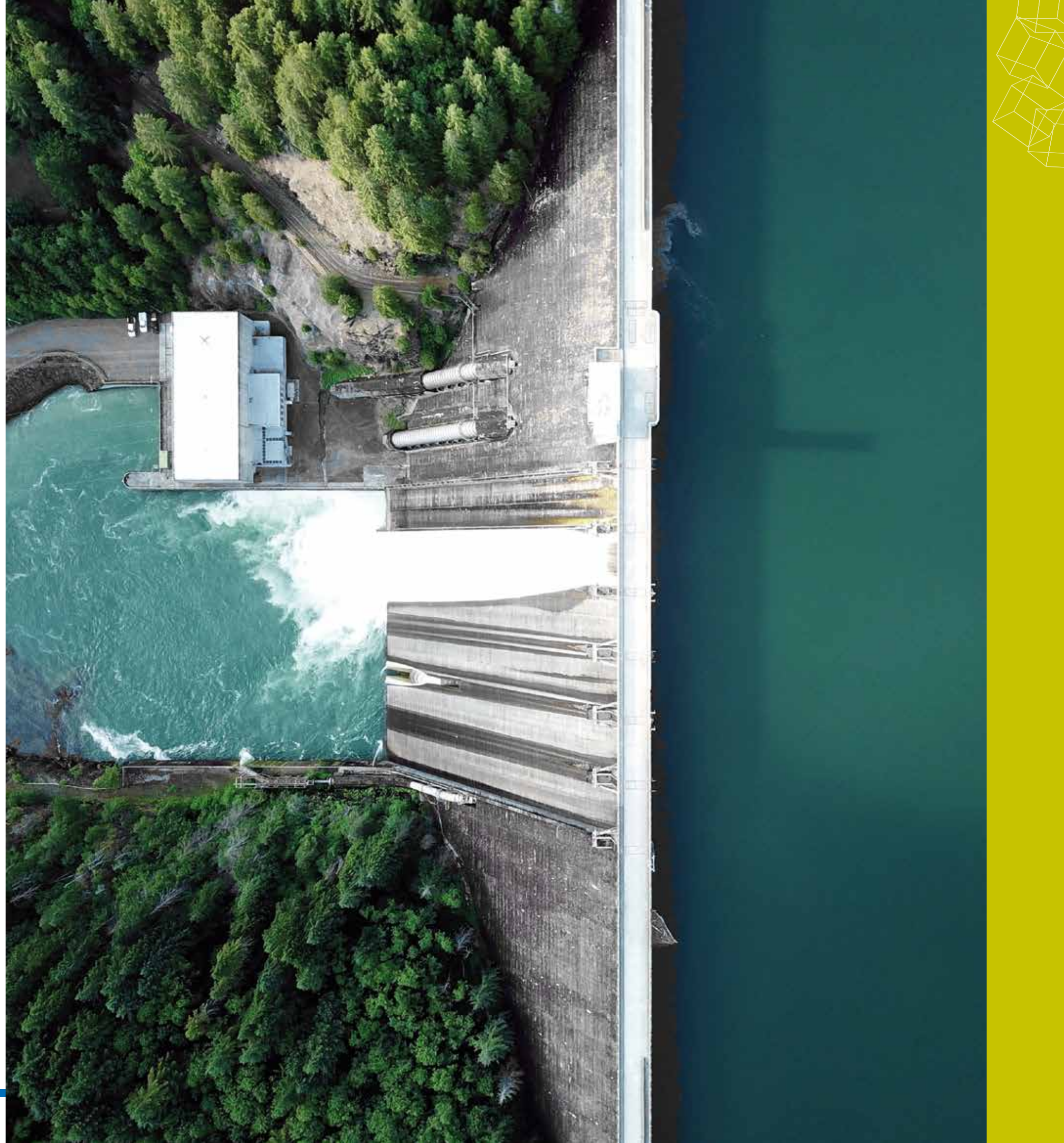
**Mapei Research & Development**, which has always been at the heart of the company, analysed every formula, looking for, and finding, formulations with less impact on the environment but with the same performance, and in some cases even better. Products from the **ZERO Line** enable new buildings to be constructed and old buildings to be restored so they last, thinking about future generations, the good of the planet and the wellbeing of both those who construct them and those who inhabit them.

### Lower emissions and full offsetting

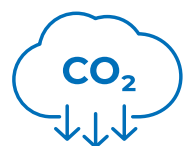
**Optimised formulations and production processes** and the use of **more sustainable packaging** result in a considerable reduction in CO<sub>2</sub> emissions. Any residual emissions are then **fully offset** through renewable energy and reforestation projects.

### Respect for the environment and people

Products from the **ZERO Line by Mapei** have been developed to **safeguard the health** of installers and of those who use them on site, creating healthier surroundings for the people who will live them.

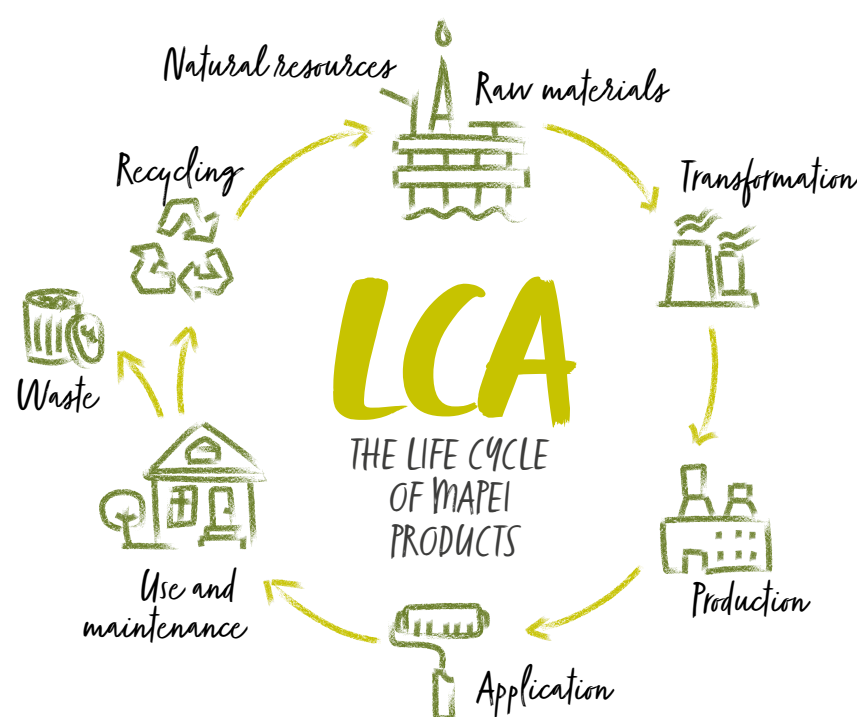






## How we measure CO<sub>2</sub>

CO<sub>2</sub> emissions of products from the **ZERO Line** are quantified using standardised **LCA** (Life Cycle Assessment) methods. For every product, **the environmental impact is evaluated throughout every stage of its life**: from extraction of the raw materials that make up the formula to their transport to the production plant, and then on to the production cycle, its packaging, to waste materials, to transporting the finished product to the distributor, then lastly on to its final disposal.



The analysis of a product's life cycle is an evaluation of its impact on the environment during every stage of its life.

## Measured environmental impact



GWP

### Global warming potential (GWP)

This refers to the presence of greenhouse gases in the atmosphere that contribute to an increase in the average temperature of the surface of the planet.



ODP

### Ozone depletion potential (ODP)

Ozone depletion potential quantifies the damage to the ozone layer.



POCP

### Photochemical ozone creation potential (POCP)

The creation potential of photochemical smog indicates the process by which ozone is **formed in the lower atmosphere** due to pollutants such as VOC and NOx.



EP

### Eutrophication potential (EP)

This evaluates the **build-up of nutrients in ecosystems** that lead to an imbalance in their equilibrium, provoking the death of fauna and a reduction in biodiversity.



AP

### Acidification potential (AP)

Acidification potential refers to the emission into the air of acidifying substances that lead to a reduction of the pH of precipitations and causes **acid rain** phenomenon.



ADP-ELEMENTS

### Abiotic depletion potential: minerals & metals (ADP-ELEMENTS)

Expresses the **depletion potential of mineral resources**.



ADP-FOSSIL

### Abiotic depletion potential: fossil fuels (ADP-FOSSIL)

Expresses the **depletion potential of fossil fuels**.



WDP

### Water deprivation potential (WDP)

Expresses the **deprivation potential of water resources** caused by the use of water.





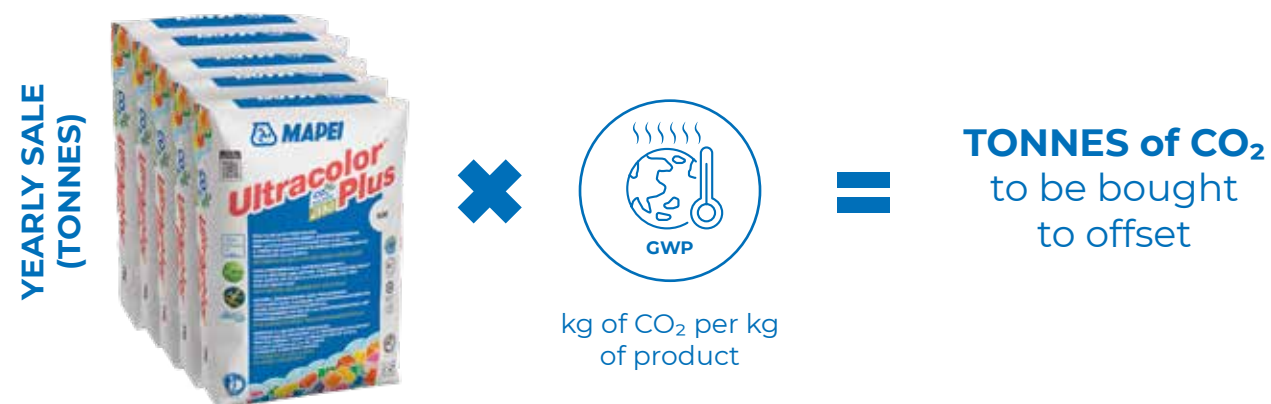
## Certified values

The results obtained through LCA are verified and certified by an external body by means of an **EPD (Environmental Product Declaration)** published with the International EPD System. An **EPD documents the environmental effect of a product throughout its life cycle** and, in the construction sector, are a great help to architects, design engineers and other buyers for a better understanding of the sustainability characteristics and impact on the environment of a product.

### Offsetting: a simple calculation

Once the amount of CO<sub>2</sub> has been calculated using LCA, it just needs to be multiplied by the amount sold in tonnes.

Once this figure has been calculated, **Mapei offsets emissions** by purchasing **certified carbon credits** to promote renewable energy and forestry protection projects. A commitment to the planet, to people and to biodiversity. **1 credit = 1 tonne of offset CO<sub>2</sub>.**



Up until now, Mapei has purchased credits for **80,000 tonnes of offset CO<sub>2</sub>**. What are they equivalent to?



### We only purchase certified credits

We take great care when choosing which **projects to finance through the purchase of credits**: they must lead to a significant and sustainable impact on the development of emerging and developing Countries that goes much further than simply reducing CO<sub>2</sub> emissions. In addition, they must meet the requirements of many of the SDGs set by United Nations for sustainable development from a social, economic and environmental perspective.



#### VIETNAM: RENEWABLE ENERGY PROJECT

Reduction in emissions: **+550,000 tCO<sub>2</sub>/year**  
Annual production: **+636,900 MWh**

New job opportunities: **+1,800**  
Standard: **Clean Development Mechanism (CDM)**



#### INDONESIA, REDD+ PROJECT

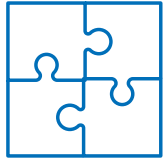
Reduction in emissions: **+3,500,000 tCO<sub>2</sub>/year**  
Biodiversity safeguarded: **+90,000 ha of protected forest**

New job opportunities: **+70**  
Standard: **Verified Carbon Standard + CCBS**



CO<sub>2</sub> 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 the webpage [zero.mapei.com](https://zero.mapei.com).





# ZERO Line by Mapei

The **ZERO Line** can be used across a host of **Mapei** solutions. From installing ceramic and natural stone tiles to waterproofing applications, from new builds to restorations, there is always a solution with fully offset CO<sub>2</sub> emissions. So, with **Mapei**, every project can be a choice for sustainability.



## PRODUCTS FOR CERAMICS AND NATURAL STONE



## GROUTS



### Ultracolor Plus

High-performance, anti-efflorescence, fast-setting and drying polymer-modified mortar free from Portland cement with water-repellent **DropEffect**® and mould-resistant **BioBlock**® technology for grouting joints up to 20 mm wide, with very low emission of volatile organic compounds and fully offset Greenhouse Gas Emissions.

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## ADHESIVES



### Keraflex Easy S1 ZERO

High-performance, easy to apply, deformable grey and white cementitious adhesive with extended open time, with high wetting capacity, very low emission of volatile organic compounds and fully offset Greenhouse Gas emissions. It is particularly recommended for bonding large-sized tiles over large areas of flooring.

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### Keraflex Extra S1 ZERO

High-performance, deformable grey and white cementitious adhesive with variable rheology, with no vertical slip or with high wetting capacity, extended open time, with very low emission of volatile organic compounds and fully offset Greenhouse Gas emissions, for ceramic tiles and stone material including in large format.

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### Keraflex Maxi S1 ZERO

High-performance, deformable cementitious grey and white adhesive, with extended open time and no vertical slip, with **Low Dust technology**, very low emission of volatile organic compounds and with fully offset Greenhouse Gas emissions. Especially suitable for the installation of large-size porcelain tiles and natural stone.

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### Ultralite S1 Flex ZERO

One-component, high-performance, deformable, lightweight, grey and white cementitious adhesive with no vertical slip and extended open time, **Low Dust technology** and extremely high yield, with very low emission of volatile organic compounds and fully offset Greenhouse Gas Emissions. Easy to apply by trowel with high back-buttering capacities for ceramic and stone tiles. Ideal for large-format tiles.

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## PRODUCTS FOR CLEANING, MAINTAINING AND PROTECTING SURFACES



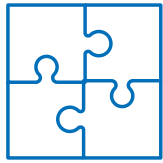
### UltraCare Acid Cleaner

Concentrated acid-based cleaner in liquid form to remove stubborn cementitious grout residues from glass mosaic, ceramic and acid resistant natural stone. Ideal for cleaning after installation. With fully offset Greenhouse Gas Emissions.

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# ZERO Line by Mapei



## UltraCare Grout Cleaner

Ready to use concentrated cleaner, specific for both epoxy and cementitious grouts. With fully offset Greenhouse Gas emissions.

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## UltraCare HD Cleaner

Concentrated high performing professional detergent to remove organic dirt and to undertake a deep clean of surfaces. It is also effective as wax remover for water-based and metal-flake waxes. With fully offset Greenhouse Gas emissions.

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## UltraCare Keranet

Acid-based concentrated cleaning product in liquid form to remove cementitious residues from porcelain, ceramic and all acid-resistant materials. Ideal for cleaning operations after completing laying work, for removing salt and limescale efflorescence and rust stains. With fully offset Greenhouse Gas emissions.

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## UltraCare Kerapoxy Cleaner

Ready to use special cleaning product to remove epoxy residues. With fully offset Greenhouse Gas emissions.

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## UltraCare Multicleaner

Concentrated cleaner with a very high yield for everyday cleaning and maintenance of surfaces.

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## UltraCare Smooth Silicone

Smoothing product for finishing sealants during application. With fully offset Greenhouse Gas emissions.

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## WATERPROOFERS



## Mapelastico ZERO

Two-component cementitious mortar, flexible down to -20°C, for waterproofing balconies, terraces, bathrooms and swimming pools with fully offset Greenhouse Gas emissions.

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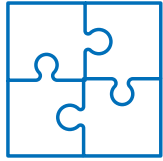
## Monolastico

One-component cementitious waterproofing mortar with fully offset Greenhouse Gas emissions.

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## PRODUCTS FOR BUILDING



### Mapefer 1K ZERO

One-component, anti-corrosion cementitious mortar for inhibiting the formation of rust on reinforcement rods.

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### Mapefill ZERO

Fluid mortar with positive internal tension. For precision anchoring of machinery or metallic structures and repairing damaged structures that require the use of free-flowing mortars.

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### Mapegrout 430 ZERO

Fine-grained, fibre-reinforced, thixotropic, compensated-shrinkage mortar for repairing the protective concrete layer on deteriorated concrete structures. May also be applied with continuous-feed rendering machine.

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### Mapegrout Easy Flow ZERO

One-component, shrinkage-compensated, sulphate-resistant thixotropic mortar, with high crack resistance, even when subject to dynamic cyclical loads, suitable for repairing concrete structures with a rendering machine.

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### Mapegrout Easy Repair ZERO

Thixotropic, fibre-reinforced, compensated-shrinkage, resistant to aggressive sulphates mortar, for repairing deteriorated concrete structures even subject to attack from aggressive sulphates. May also be applied with continuous-feed rendering machine.

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### Mapegrout Hi-Flow ZERO

Shrinkage-compensated, fibre-reinforced, hi-flow mortar for concrete repair. Ideal for repairing structures where particular thicknesses and the state of deterioration require the use of high flow mortars. It is certified for repairing and anchoring work.

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### Mapegrout Thixotropic ZERO

Shrinkage-compensated, fibre-reinforced, thixotropic mortar. Suitable for repair deteriorated concrete structures on both vertical and horizontal surfaces even in heavy thicknesses, without the need for formwork.

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### Planitop Smooth & Repair ZERO

Quick-setting, R2-class, thixotropic, fine-grained cementitious mortar for non-structural repairs and smoothing layers on internal and external, horizontal and vertical concrete surfaces and for repairing structures exposed to the open air and in permanent contact with water.

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### Planitop Smooth & Repair R4 ZERO

Structural R4-class, quick-setting, thixotropic, fine-grained cementitious mortar for structural repairs and smoothing layers on internal and external, horizontal and vertical concrete surfaces and for repairing structures exposed to the open air and in permanent contact with water.

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