

Building a
SUSTAINABLE
future together

Offsetting Carbon Emissions with MAPEI Products



SUSTAINABILITY

MAPEI's approach

MAPEI was founded more than 80 years ago in Milan, Italy, and since then has offered solutions of excellence for chemical products for the building sector 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. This target is achieved without ever forgetting that it is only through constant, open and transparent dialogue with our contacts and clients that we can truly understand the real needs of the market and provide innovative and sustainable responses.

Additionally, MAPEI pursues a concept of sustainability that encompasses the factors of comfort and well-being. MAPEI firmly believes that the profits of a company should go hand-in-hand with ethics, respect for people, and the environment. We have always applied these principles to corporate strategy.



OFFSETTING CARBON EMISSIONS WITH MAPEI PRODUCTS

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Providing products with **offset carbon emissions**

In support of MAPEI Group's global sustainable initiative, MAPEI North America joins in launching the ZERO line of products. Despite our best efforts to reduce our carbon emissions, greenhouse gas (GHG) emissions will continue. MAPEI can account for unavoidable emissions by offsetting them through the acquisition of third-party-certified carbon credits in support of reforestation projects and protection of biodiversity.

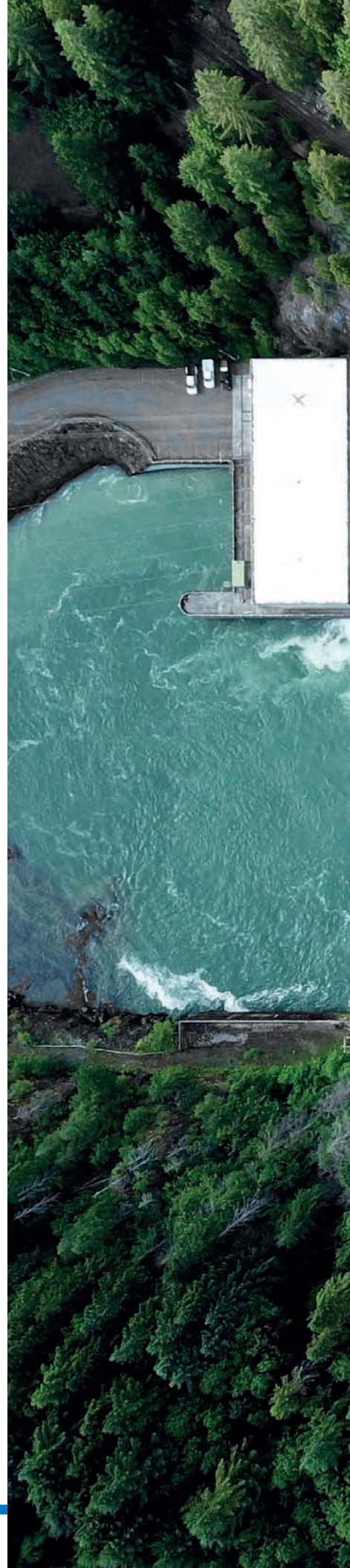
Reducing environmental impact without compromising on performance: MAPEI's Research & Development teams, which have always been at the heart of the company, analyzed every formula to look for and find formulations with less impact on the environment but with the same performance. In some cases, the optimized formulas performed even better than their previous versions. These products enable new buildings to be constructed and old buildings to be restored with long-lasting durability that benefits current users and future generations. These products have been created for the good of the planet in addition to the well-being of those who build with them and those who inhabit the structures built with them.

Lower emissions and fully offsetting

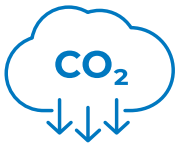
First, we optimize our formulas and production processes, and use more sustainable packaging, all of which results in a considerable reduction in CO₂ emissions. Any residual emissions are then fully offset through reforestation projects and protection of biodiversity.

Respect for health and the environment

MAPEI's products are developed to safeguard the health of installers and occupants. At a minimum, these products have an Environmental Product Declaration (EPD). These products also carry the SCS Global Services Indoor Advantage Gold certification, signifying low VOC emissions and compliance with the California Department of Health (CDPH) Standard Method v1.2-2017.

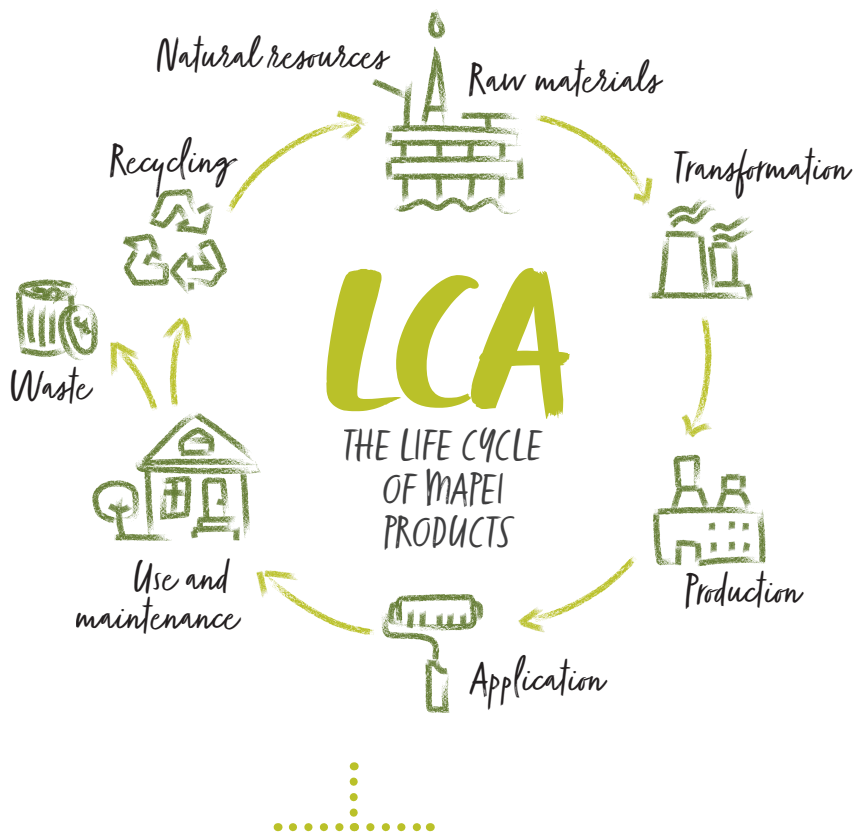






Measuring a product's CO₂ emissions

CO₂ emissions from our products are expressed in kg of CO₂eq per kg of product and are calculated using standardized **Life Cycle Assessment (LCA)** methodology. The analysis of the life cycle of a product is an evaluation of the environmental impacts that the product has throughout all the various phases of its life, "from cradle to grave." Calculations are made from extraction of the raw materials that make up the formula to their transport to the production plant, through the production cycle, product packaging, waste materials, transportation of the finished product to the distributor or customer and 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 buildup 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 cause the phenomenon of acid rain.



ADP-ELEMENTS

ADP-ELEMENTS

Abiotic depletion potential: Minerals & metals (ADP-ELEMENTS).

Expresses the depletion potential of mineral resources.



ADP-FOSSIL

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.

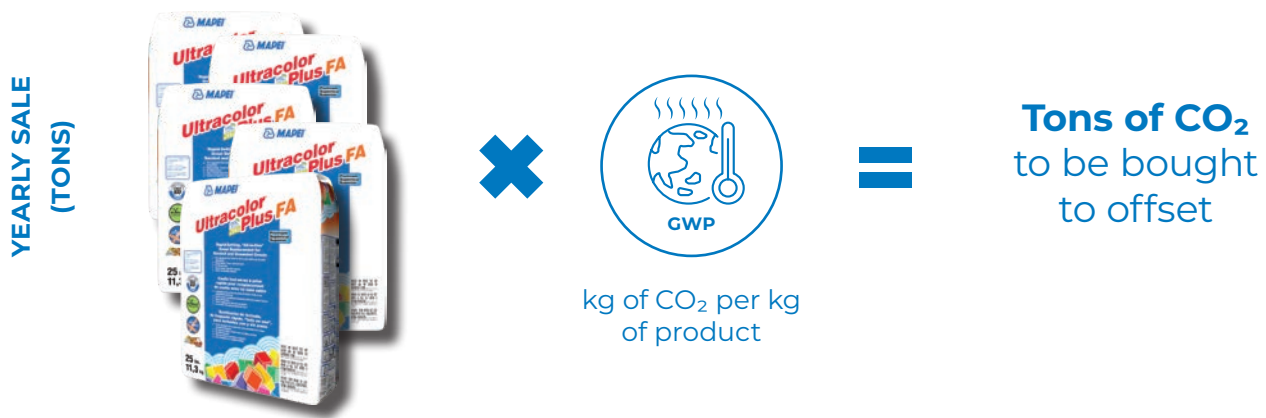


Certified values

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

Offsetting: a simple calculation

Once the amount of CO₂ has been calculated using LCA, it just needs to be multiplied by the amount sold in tons. Once this figure has been calculated, MAPEI offsets emissions by purchasing certified carbon credits to promote forestry protection projects.



In 2023, MAPEI purchased credits for 150,000 metric tons of carbon offset. Per the Environmental Protection Agency's (EPA) Greenhouse Gas Equivalencies Calculator, this is equivalent to:

Greenhouse gas emissions avoided by

41.2 wind turbines
running for a year

Carbon sequestered by

2,452,004 tree seedlings
grown from 10 years

6,418,871 trash bags of waste
recycled instead of landfilled

5,620,379 incandescent lamps
switched to LEDs



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 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 www.mapei.com/ca/en-ca/sustainable-products.

We only purchase certified credits

We take great care when choosing which projects to finance through the purchase of credits: The projects must lead to a significant and sustainable impact on the development of emerging and developing countries that goes much further than simply reducing CO₂ emissions. In addition, the projects must meet the requirements of many of the Sustainable Development Goals (SDGs) set by United Nations for sustainable development from a social, economic and environmental perspective.

We contribute to 5 projects in a variety of nations including Nicaragua, Uruguay, Brazil and Mexico.

Featured Projects



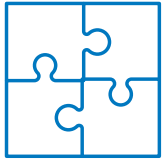
Nicaragua: Renewable energy project

- 279 people trained in forest management, building skill capacity in the community
- 424 new jobs created, boosting the local economy
- 37,000 tons of CO₂ sequestered from the atmosphere on average each year
- 4,011 hectares reforested improving biodiversity and soil quality



Mexico: Reforestation project

- 62,000 MWh of clean electricity generated on average annually, providing a clean alternative to fossil fuels
- 30,000 tons of CO₂e reduced on average annually, directly contributing to climate-change mitigation



Offsetting carbon emissions with MAPEI products

The following products can be used across a wide variety of MAPEI solutions: From installing ceramic and natural stone tile to waterproofing applications, from new builds to restorations. With MAPEI, every project can be a choice for sustainability.



TILE & STONE INSTALLATION SYSTEMS



GROUT



Ultracolor® Plus FA Rapid-Setting, “All-in-One” Grout Replacement for Sanded and Unsanded Grouts

Ultracolor Plus FA – with DropEffect™ technology and CO₂ emissions fully offset in the product’s life cycle – is an ultra premium, fine-aggregate, fast-setting, polymer-modified, color-consistent, nonshrinking, efflorescence-free grout for joint widths from 1/16" to 3/4" (1.5 to 19 mm). DropEffect reduces surface absorption to help repel water, dirt and grime from penetrating grout joints. *Ultracolor Plus FA* is specially formulated with MAPEI’s High-Hydrated Cement Technology (HCT™) to eliminate common problems such as color consistency and efflorescence. Along with offering higher polymer content, HCT reduces absorption and increases stain resistance when compared with standard-performance cement grouts.





MORTARS



Keraflex® Super

Premium, Extra Smooth, Large-and-Heavy-Tile Mortar with Polymer

Keraflex Super is a highly versatile, nonsag/nonslump, large-and-heavy-tile mortar and thin-set mortar for tile and stone for installations on floors, walls and countertops. This polymer-modified mortar has a high content of a unique dry polymer, resulting in excellent adhesion to the substrate and tile, with enhanced resistance to freeze/thaw environments. This product features a very low emission of volatile organic compounds and includes an offset of greenhouse gas emissions. It is formulated with Easy Glide Technology™ for ease of application and with a consistency that allows adjustability when used with lippage control systems. *Keraflex Super* can also be used as a mortar over uncoupling, crack-isolation, sound-reduction and waterproofing membranes.

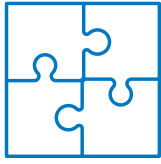


Ultraflex® LFT™

Premium, Large-and-Heavy-Tile Mortar with Polymer

Ultraflex LFT is a premium, nonsag, large-and-heavy-tile mortar and thin-set mortar designed for large-format and heavy tile and stone for interior/exterior floor, wall and countertop installations. This mortar has a high content of unique dry polymer, resulting in excellent adhesion to the substrate and tile. This product features a very low emission of volatile organic compounds and includes an offset of greenhouse gas emissions. It is formulated with Easy Glide Technology™ for ease of application.





Offsetting carbon emissions with MAPEI products



MORTARS



Light Mortar for Tile & Stone

Lightweight, Polymer-Enriched Mortar for Floors and Walls

Light Mortar for Tile & Stone is a premium-grade, lightweight, single-component thin-set mortar that can also be used for large-and-heavy-tile and nonsag applications. This high-performance, polymer-modified mortar is formulated with Easy Glide Technology™ for ease of application, and with BioBlock® technology for mold and mildew resistance. *Light Mortar for Tile & Stone's* unique Ultralite Technology™ provides twice the coverage of a standard thin-set mortar per pound/kg and may contribute to LEED points with more than 20% recycled content. This product features a very low emission of volatile organic compounds and includes an offset of greenhouse gas emissions.



Large Tile & Stone Mortar

Premium, Polymer-Enriched, Large-and-Heavy-Tile and Thin-Set Mortar

Large Tile & Stone Mortar is a premium, regular-setting, polymer-enriched (“modified”) large-and-heavy-tile mortar that is ideal for installing large-format tile and stone on floors, walls and countertops. This mortar can also be used in thin-set applications to install smaller-format tile over a diverse range of substrates. This product features a very low emission of volatile organic compounds and includes an offset of greenhouse gas emissions.



MAPEI Ultralite® Mortar

Premium, Lightweight Mortar with Polymer for Large and Heavy Tile

MAPEI Ultralite Mortar is a premium-grade, lightweight, single-component mortar that can also be used for large-and-heavy-tile and nonsag applications, and that can also be used for thin-set mortar installations. This high-performance, polymer-modified mortar features a very low emission of volatile organic compounds and includes an offset of greenhouse gas emissions. It is formulated with Easy Glide Technology™ for ease of application, and with BioBlock® technology for mold and mildew resistance. *MAPEI Ultralite Mortar* utilizes Ultralite Technology™ for twice the coverage of a standard thin-set mortar per pound/kg and contains more than 20% recycled content.





CONCRETE RESTORATION SYSTEMS



Mapecem® Quickpatch High-Performance Concrete Patch

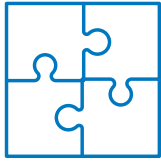
Mapecem Quickpatch is a high-performance, fast-setting, cementitious material used for the patching of concrete surfaces. This product features a very low emission of volatile organic compounds and includes an offset of greenhouse gas emissions.



Planitop® XS One-Component, Fast-Setting, Extended-Working-Time, Vertical and Overhead Repair Mortar

Planitop XS is an extended-working-time variation of *Planitop X*. Shrinkage-compensated, fiber-reinforced, polymer-modified and containing a proprietary corrosion inhibitor, *Planitop XS* features *Planitop X*'s outstanding workability and versatility. This product features a very low emission of volatile organic compounds and includes an offset of greenhouse gas emissions.





Offsetting carbon emissions with MAPEI products



CONCRETE RESTORATION SYSTEMS



Mapefer™ 1K Corrosion-Inhibiting Coating for Reinforcing Steel

Mapefer 1K [NA] is a one-component, anti-corrosion coating based on unique polymers, cementitious binders and corrosion inhibitors. Mapefer 1K is specially formulated for application on properly prepared reinforcing steel to inhibit oxidation and rust formation. This product features a very low emission of volatile organic compounds and includes an offset of greenhouse gas emissions.



SUSTAINABILITY

is built into everything we do

MAPEI's processes focus on sustaining the environment for today and tomorrow.
We call it "The 3 P's of MAPEI: People, Planet and Products"



PEOPLE

MAPEI's corporate vision, including our Code of Ethics, has always included the philosophy of sustainability.



PLANET

Our operational processes are designed to reduce our carbon footprint and maximize our environmental "handprint."



PRODUCTS

With many sustainable attributes and certifications, our products can contribute to a variety of green building standards and certification programs.

For more information about our sustainability commitment, visit www.mapei.com/ca/en-ca/sustainable-products

Learn More



CO₂ ZERO
FULLY OFFSET IN THE ENTIRE LIFE CYCLE



#HealthandtheEnvironment #MAPEIcanada



MAPEI Canada





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