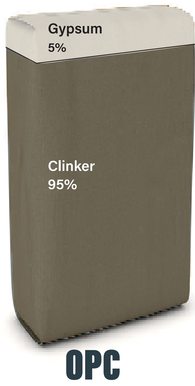
Limestone Calcined Clay Cement LC3

The market-ready **cement technology** for people and the planet



OPC

Near Zero CO_2

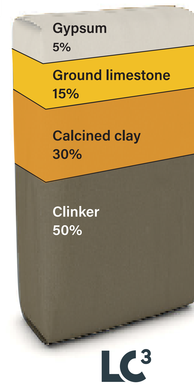
CO_2 from the decomposition of limestone (process emissions)

+

CO_2 from burning fuel to reach 1450°C

Calcining clay and **grinding limestone** does not generate any process carbon emissions

40% reduced CO_2 emission



LC3

Near Zero CO_2

CO_2 from burning fuel to reach 850°C to calcine clay

CO_2 from the decomposition of limestone

+

CO_2 from burning fuel to reach 1450°C

Limestone Calcined Clay Cement (LC³) is a blended cement that replaces half of the carbon-intensive clinker found in Ordinary Portland Cement (OPC) with materials that emit little to no CO_2:

- **Calcined clay**
- **Ground limestone**

LC³ is a **low-carbon** and affordable **alternative** for the cement industry

LC³ can **save up** to **500 million tonnes of CO_2** per year by 2040

LOW CARBON

LC³ reduces the **carbon-intensive** clinker content in a typical cement bag **by half** and **reduces the CO_2 emissions by 40%** compared to Ordinary Portland Cement (OPC)

LOW CAPITAL

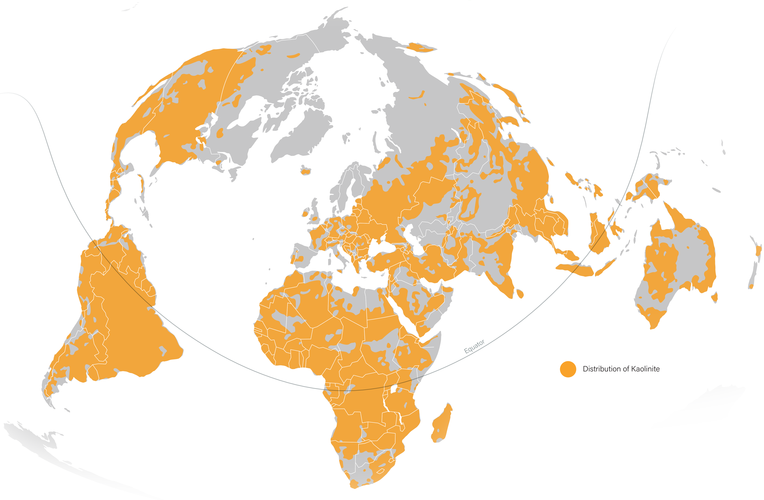
Because **calcining clay is cheaper than producing clinker**, **LC³ saves up to 25%** of the production costs

LC³ is a **scalable**, **high-performance** solution for cement production

SCALABLE

The **abundance of clay** means LC³ **can be produced** in most cement plants **worldwide**

Kaolinite clay, the most suitable clay for making LC³, is **available in abundance** all over the world.

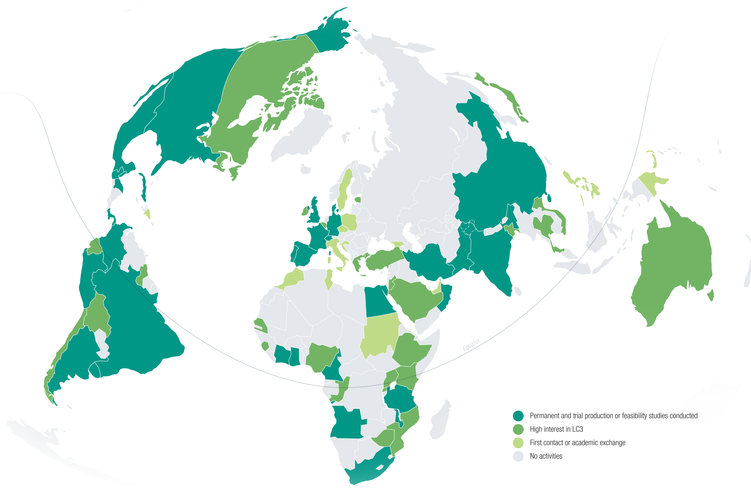


HIGH PERFORMANCE

LC³ performs as well if not better than OPC with the **advantage of greater resistance** to the penetration of chloride ions – the main cause of corrosion

LC³ across the **world**

LC³ is produced today
in **9 major plants** worldwide;
+20 more by 2030



Colombia:

Building with LC³

© Cementos Argos

LC³ is already produced industrially in major plants around the world and used in large-scale **building** and **infrastructure projects**: shopping malls, roads, tunnels, bridges, etc.

For example in Columbia, the Puente Cauca viaduct on the Pacifico 2 road is built with LC³ produced by Cementos Argos.

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Hábitat para la Humanidad® México

Habitat for **Humanity project**: Family houses with LC^3

House with conventional cement.

© Holcim Mexico

House with LC3.

© Holcim Mexico

Concrete made with LC^3 usually has a slight reddish color due to the **natural color of clay**

The Habitat for Humanity project aims to compare the performance of two types of cement by constructing two small family houses on a study site: one with conventional cement and the other with LC^3.

The comparison will focus on CO_2 emissions, mechanical properties in both fresh and solid states, and durability.

This project is implemented by LC^3 Project TRC-LATAM / CIDEM, with support from Holcim Mexico.