



G3NIUS

Smarter. Greener. Better.
BY GRESMALT

CARBON FOOTPRINT OF PRODUCTS (CFP)

Porcelain Stoneware Ceramic Tiles

in compliance with: ISO 14067:2018 - CFP

Verification and Validation:

LCA study:

Technical Support:

Issue date:

Valid to:

ICMQ S.p.A

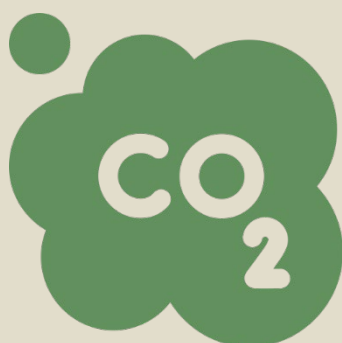
Studio LCA relativo alla CFP del prodotto G3NIUS

7,4mm del Gruppo Ceramiche Gresmalt S.p.A.

University of Modena and Reggio Emilia (Italy)

26/11/2023

26/11/2028



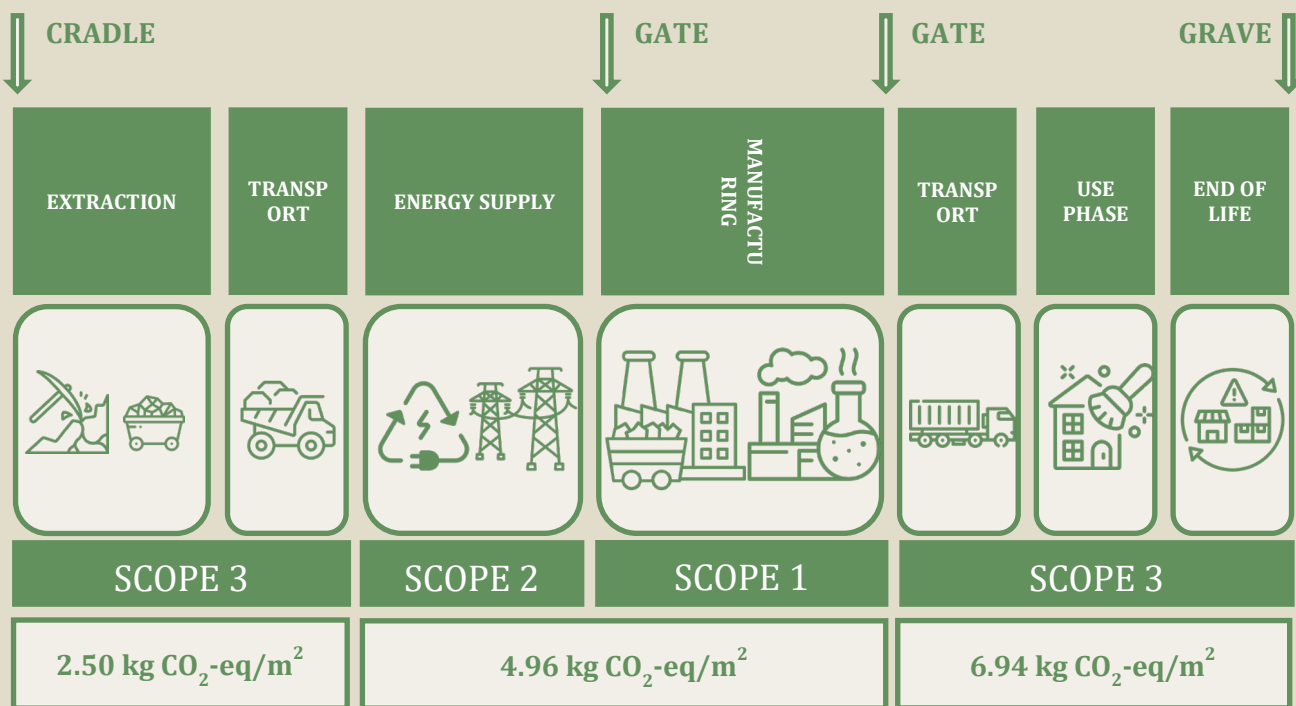
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In the production of ceramic tiles with G3NIUS technology, we are committed to minimizing our impact on the environment throughout the entire life cycle, including raw material selection, product design and manufacturing. This comprehensive, cradle-to-grave approach includes a detailed assessment of the carbon footprint of the product beyond the boundaries of our manufacturing plants. We use the Life Cycle Assessment (LCA) tool to carry out this assessment, following the standards of ISO 14025:2010 and EN 15804+A2:2019.



The Total Carbon Footprint of Products of ceramic tiles produced by G3NIUS technology, calculated using primary data for the manufacturing (Scope 1) and electricity procurement (Scope 2) phases, and estimated through scenario analysis for the sourcing (Scope 3) phase, is:

7.46 kg CO₂-eq/m²

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To assist our customers and stakeholders in understanding the carbon footprint values of ceramic tiles produced using G3NIUS technology, we provide these approximate equivalencies using the GWP of the Italian ceramic industry as a benchmark. Please note that these are estimates and should not be used for emissions inventories or formal carbon footprint calculations.

The cradle-to-gate Carbon Footprint of an area covered by 100 m² of ceramic tiles is approximately:

G3NIUS = 0.746 Tons CO₂-eq
BENCHMARK = 1.100 Tons CO₂-eq

		G3NIUS	BENCHMARK	
	This is equivalent to the greenhouse gas emissions produced by:	3,077	4,538	km driven by an average gasoline-powered passenger car.
	This is equivalent to CO ₂ emissions from:	318	470	litres of gasoline consumed.
	This is equivalent to carbon sequestered by:	12.3	18.2	tree seedlings grown for 10 years.

The results shown in the table above were obtained using the Greenhouse Gas Equivalencies Calculator proposed by the U.S. Environmental Protection Agency ([US EPA](https://www.epa.gov/greenhouse-gas-equivalencies-calculator)).

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Assumptions for calculating Carbon Footprint of Products:

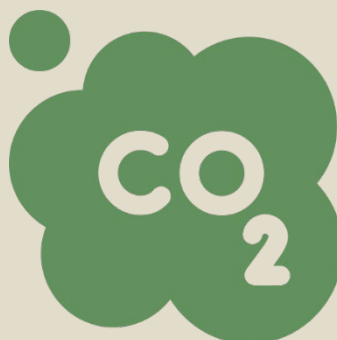
- Functional Unit: 1 m² of porcelain stoneware ceramic tiles
- Product Weight: 13.80 kg/m² (weight without packaging)
- Manufacturing Location: Italy
- Product Lifetime: 50 years
- System Boundaries: from cradle to grave
- LCA Tool: PRé Sustainability SimaPro 9.5
- Database: Ecoinvent 3.8

Disclaimer:

This CFP has been calculated using the SimaPro LCA software as described above. The results reported here may be subject to change as the tool and database used are updated.

Notes:

Source of Icons: [FLATICON](#)



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MODENA E REGGIO EMILIA



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Rey Juan Carlos

The University of Modena and Reggio Emilia (Italy) and the University Rey Juan Carlos of Madrid (Spain) are key partners of Gresmalt Group in the design of sustainability solutions.



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