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SCULPT COLLECTION

environmental product declaration

EPD®

THE INTERNATIONAL EPD® SYSTEM

PORCELAIN STONEWARE SLABS FOR INTERNAL AND EXTERNAL WALLS AND FLOORINGS

FIANDRE ARCHITECTURAL SURFACES

iris Ceramica

iris FMG FABBRICA MARMI E GRANITI

eliffelgres

ARIOSTEA HIGHTECH MARBLE-STONE & WOOD

SAPIENSTONE dress your kitchen

porcelaingres de_tiles

UN CPC CODE 373

REGISTRATION NUMBER	S-P-01439
EPD® PUBBLICATION DATE	2019-03-22
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ECO PLATFORM EPD EN 15804 VERIFIED

EPD COMPLIANT WITH EN 15804:2012 + A1:2013

ECO EPD reference number: 00000781

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EPD® owner:	**Graniti Fiandre S.p.a.,** Via Radici Nord 112, 42014 Castellarano (RE), Italia
Programme operator:	**INTERNATIONAL EPD® SYSTEM** www.environdec.com EPD® THE INTERNATIONAL EPD® SYSTEM
EPD® pubblication date	2019-03-22
EPD® validity	2023-12-18
Product covered by this EPD® (Product Groups)	Porcelain Stoneware Slabs
Product Groups	5 Product Groups selected based on thickness **Thickness 6 - 8 - 9 - 10 - 12 mm** The environmental performances declared in this EPD refer to Reference Products, each one selected as representative for each thickness.
Declared Unit:	1 m^2 of porcelain stoneware slabs, **Thickness 6 - 8 - 9 - 10 - 12 mm**
System Boundaries:	From Cradle to Gate The Life Cycle Assessment was carried out considering only the Product Stage (modules A1-A3 according to EN 15804 standard)
Reference manufacturing sites for the environmental performance calculation	Castellarano (RE) — Via Radici Nord n.112 Castellarano (RE) — Via Cimabue n.20 Castellarano (RE) — Via Manganella n.2 Fiorano Modenese (MO) — Via Ghiarola Nuova n.128 Sassuolo (MO) — Via Valle d'Aosta n.37 Viano (RE) — Via Gargola n. 4

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PORCELAIN STONEWARE SLABS

Porcelain stoneware is a special type of ceramic product, used for floors and walls, combining the highest levels of technical features to a particularly prestigious appearance.
The areas of application in the building industry are multiple, these slabs can be used for internal and external walls and floorings.
Porcelain stoneware slab from GranitiFiandre S.p.A. is a product made of all-natural raw materials of proven quality, mined around the world and transformed into one of the most advanced facilities in Europe: the intrinsic values powered by over 50 years of market leadership, constitute a unique blend of innovation, design and sustainability.
GranitiFiandre Group offers an extremely wide range of products which includes products of different colors, surface finishes and formats that may vary from 20x20 cm to slabs of 320x160 cm.
In particular, big slabs combine the established and classic features, which have always distinguished the GranitiFiandre porcelain stoneware at the top of the line, with extremely new qualities with high performances: strength, lightness, flexibility, ductility. Big slabs combine maximum freedom of design with a great flexibility: on the one hand, the maxi-slab drastically reduces the amount of interruptions in the design units, on the other the wide range of all the sub-multiples ensures great versatility for every need. The large size delivers a new architectural concept, which goes beyond the single slab: it allows designers to reinvent the design criteria, giving them maximum freedom and minimum constraints.

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BRANDS
Fiandre
Eiffelgres
FMG
Ariostea
Iris Ceramica
SapienStone
Porcelaingres

The range of products contained in this EPD includes **PORCELAIN STONEWARE SLABS belonging to the BIa UGL Group** (water absorption ≤0.5%) under the brands FIANDRE, ARIOSTEA, FMG, SAPIENSTONE, IRIS, EIFFELGRES and PORCELAINGRES having thicknesses 6, 8, 9, 10 and 12 mm.

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Thickness 6 mm / Average weight 14,07 kg/m²		
Formats (cm) 200x100 - 200x120 - 235x100 - 240x120 - 250x120 - 300x150 - 300x120 - 300x100 - 315x150 and submultiples		
COLLECTIONS		
MAXIMUM FIANDRE EXTRALITE®	MEGAMICRO	MAXFINE®
ULTRA®	HI-LITE	GRUNGE CONCRETE
TEKNOSTONE	MATERIE HIGH-TECH	INNOVATIVE SLABS
URBAN	URBAN GREAT	GREAT METASTONE
GREAT METALS		

Thickness 8 mm / Average weight 18,5 kg/m²		
Formats (cm) 30x60 - 60x60 - 60x120		
COLLECTIONS		
MARMI CLASSICI	MARBLE LAB	NEWMARMI

Thickness 9 mm / Average weight 21,1 kg/m²		
Formats (cm) 30x30 - 30x60 - 60x60 - 60x120 - 100x100 - 90x45 - 150x150 - 200x100		
COLLECTIONS		
MARBLE	NEWGRANITE	NEWMARMI
MARMI	STARDUST	UNIVERSE
MARMI HIGH-TECH	ONICI CLASSICI	NORTHSTONE
GRANITI	MARMI CENTO2CENTO	MARMI 200X100

Thickness 10 mm / Average weight 22 kg/m²			
Formats (cm) 30x30 - 40x40 - 30x60 - 60x30 - 60x60 - 120x60 - 90x45			
COLLECTIONS			
MARMI	LASTRANERA	NEWMARMI	IRIDIUM
ROADS	PIETRALAVICA	NEWSTONE	PILLART
CHROMOCODE3D	GRAFITE	NEWGRANITE	GREIGETONE
GRANITI	ARGENT	DATAUNI	LANDSTONE
PURE	PIETRA DI ARAGONA	PIETRA DI ORIGINE	TRACE
PIETRE	ATMOSPHERE	PIETRA DEL BRENTA	NEW GROUND NATURALE
SHADE	SENSIBLE	GREENSTONE	CITYSTONE
JUST	COTTO HIGH-TECH	NEW CO-DE	FOSSILCOLLECTION
STARDUST	MARMI	TOUCH	NEW ROYAL
LIVING FIANDRE CASA	TINTE UNITE	TRAVERTINI	WAVE
LOFT FIANDRE CASA			

Thickness 12 mm / Average weight 28,14 kg/m²
Formats (cm) 320x150 - 320x158 - 320x154
COLLECTIONS
SAPIENSTONE

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TECHNICAL FEATURES

The products meet the technical specifications defined by the European standard EN 14411 and ISO 13006 Annex G, according to criteria established by method ISO 10545 - "*International Organization for Standardization Specifications for Ceramic Tile*", reported below.

Porcelain Stoneware Slabs UGL –
BIa Group according to UNI EN 14411 Annex G/ISO 13006 Annex G

TECHNICAL PROPERTIES	STANDARD OR MEASURING METHOD	VALUE REQUIRED BY EN 14411 Annex G	AVERAGE PRODUCTION VALUES	
			THICKNESSES 6 - 8 - 9 - 10 mm	THICKNESS 12 mm
Water absorption	ISO 10545-3	≤ 0,5 %	≤0,1 %	≤0,1 %
Lenght and width	ISO 10545-2	± 0,6 %	±0,1 %	--
Thickness		± 5 %	± 5 %	± 5 %
Streightness of sides		± 0,5 %	±0,1 %	--
Rectangularity		± 0,5 %	±0,1 %	--
Planarity		± 0,5 %	±0,2 %	±0,2 %
Flexural tensile strenght (R)	ISO 10545-4	≥ 35 N/mm^2	49 N/mm^2	49 N/mm^2
Resistance to deep abrasion	ISO 10545-6	Max 175 mm^3	140 mm^3	140 mm^3
Resistance to thermal shock	ISO 10545-9	Available test method	Compliant	Compliant
Frost resistance	ISO 10545-12	Requested	Compliant	Compliant
Resistance to chemicals*	ISO 10545-13	Min. Classe B - Household chemicals - Swimming pool salts	Compliant	Compliant
Resistance to staining	ISO 10545-14	1<X≤5	Compliant	Compliant
Reaction to fire	Decision 96/603 CE	No test	A1 – $A1_{FL}$	A1 – $A1_{FL}$

(*) With the exception of HYDROFLUORIC acid (HF) or its derivatives and compounds

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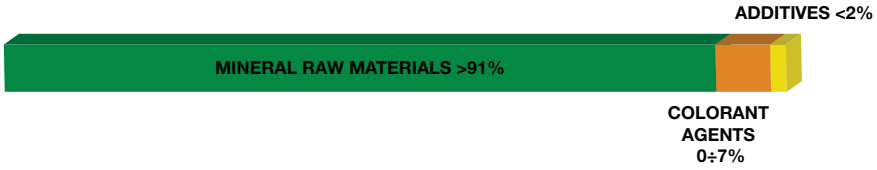
PRODUCT COMPOSITION

The slab, regardless of the thickness, is mainly composed of **mineral raw materials** (clay, quartz, kaolin, feldspar) that come partly directly from quarries and partly from recycled material, the latter mainly coming from pre-consumer material and from ceramic waste coming from other factories of the ceramic and sanitary sectors.

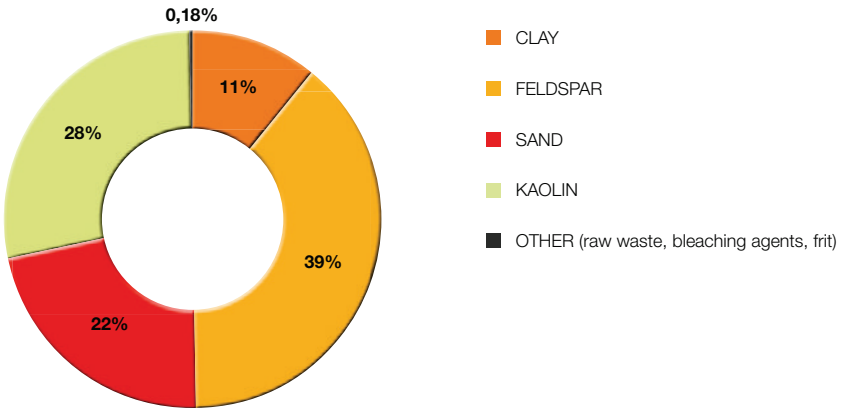
The products included in this EPD have obtained the certification of conformity according to LEED and BREEAM criteria in relation to a minimum content of recycled material of more than 40% by weight.

The aesthetic appearance of porcelain stoneware slab is obtained mainly in the phase of preparation of the mixture by application of appropriate amounts of **colorant agents** in variable amounts.
Small amounts of additives become part of the tile composition, as fluidifiers for favoring the grinding process or as chemical compounds for surface applications, for aesthetic purposes.

AVERAGE COMPOSITION OF THE PORCELAIN STONEWARE SLABS
% by weight on the final product



AVERAGE COMPOSITION OF THE MINERAL BODY
% by weight on the final product



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The mineral components may vary from product to product depending on the specific mixture used.

VARIABILITY RANGE %	MAX	MIN
CLAY	25	3,0
FELDSPAR	39	38
KAOLIN	35	18
SAND	41	13
OTHER (raw waste, bleaching agents, frit)	1	0

Porcelain Stoneware slabs DO NOT contain substances with a high degree of concern contained in the SVHC Candidate List by ECHA in concentrations greater than 0.1% by mass.

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According to EN 15804, the following table shows the different stages that make up the life cycle of a construction product and identifies the specific phases (system boundaries) considered in this Declaration.

Product stage			Construction process stage		Use stage							End of life stage				Resource Recovery stage
Raw materials	Transport	Manufacturing	Transport	Construction installation	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction demolition	Transport	Waste processing	Disposal	Reuse-Recovery-Recycling-potential
A 1	A 2	A 3	A 4	A 5	B 1	B 2	B 3	B 4	B 5	B 6	B 7	C 1	C 2	C 3	C 4	D
X	X	X	MN D	MN D	MN D	MN D	MN D	MN D	MN D	MN D	MN D	MN D	MN D	MN D	MN D	MN D

(X: module included in the LCA; MDN: undeclared module)

The declared modules (PRODUCT STAGE) include:

UPSTREAM PROCESS - A1– Raw materials: quarry extraction of raw minerals from European and non-European quarries, selection and grinding processes of fired waste derived from ceramic and sanitary sectors to obtain secondary raw materials, manufacture of fluidizers and colored pigments, generation of electricity and heat.

CORE PROCESS – A2 – Transport: transport by sea, road and rail of mineral raw materials to the reception and storage site; transportation by road of secondary raw materials.

CORE PROCESS - A3 – Manufacturing: reception and pre-mixing of mineral raw materials, grinding, atomization, pressing, drying and firing of the slabs; production of packaging materials and auxiliary materials.

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The manufacturing process of the ceramic slabs is divided into different production phases, from the acquisition and preparation of the incoming raw materials to the packaging of the finished output product.

Raw materials Acquisition:	the mixtures for the production are made through the mixing of different mineral raw materials and mainly contain a clay fraction with a plasticizing function, an inert fraction (sand) with a slimming and structural function, able to limit shrinkage and dilatation during the firing of the ceramic piece, and a feldspar fraction, with a melting function that allows the glass formation during the baking of the piece.
Mixture preparation:	the mineral raw materials, appropriately premixed automatically with the addition of water, in a variable percentage according to the production recipe, are introduced inside the milling plants, consisting of continuous mills and turbo dissolvers. Inside the grinding chambers, at the same time as the raw materials, appropriate percentages of water (taken from wells and recirculation), fluidifying and grinding bodies (consisting of pebbles and alumina spheres) are added. The fluidifier allows the formation of an aqueous suspension with homogenization of all the components and a reduction of the apparent viscosity. This aqueous suspension of the raw materials of the mixture is called "slip". Variable percentages of color concentrates are also applied to the ground mixture.
Spray-drying:	in this phase the slip, with a high percentage of moisture, is sprayed inside of steel cylinders (atomizers) through variable pressure pumps, where it is spray-dried. Subsequently hot air is introduced for the drying of the drops of slip, producing the atomized.
Forming:	The forming process consists in compacting of the powders of spray-dried by means of pressure between two surfaces with the aim to obtain a raw compacted product, the so-called "green tile". By a dosing conveyors system, the spray-dried product is extracted from the storage silos and transferred to the loading hoppers that are upstream of the continuous lines. The atomized product is sieved and deposited on the tape to a given thickness, it is subsequently compacted to a specific set pressure, exerted by the two rollers.
Drying and surface processing:	the drying of the slabs is set in such a way as to obtain an average humidity of 7.5% and is carried out by means of a horizontal passage dryer. The sheets undergo a drying process by means of a pressurized hot air recirculation. During the process the desired drying level is reached; at the end of the process the slabs have a negligible amount of moisture and a higher mechanical load that allows them to be subjected to various surface treatments to give suitable aesthetic properties to the tile.
Firing:	the firing phase has the aim of reinforcing the slab so as to give mechanical characteristics, inertia and physical-chemical resistance appropriate to the different uses. The dried sheet is placed in ovens and cooked. During the cooking cycle, the plate is preheated, cooked and cooled; the durability of these phases and the temperature reached determine the mechanical and resistance characteristics pursued. The slabs coming out of the oven are stored in special boards ready to be sent to the subsequent cutting and / or lapping phases.
Lapping / Polishing (optional):	lapping and polishing are controlled removal operations of the surface layer of ceramic pieces and are carried out to give them a bright surface and a high-quality aesthetic appearance. In these operations the individual pieces pass under a series of sanding heads, using grinding wheels or brushes of different composition able to reach the desired brilliance exclusively through mechanical abrasion.

Cutting, squaring:	the cutting phase is necessary to transform the "big slabs" into the format requested by customers. The cut is made by water jet. The production is subjected to squaring through cutting machines with high pressure water in order to obtain pieces of the desired size perfectly orthogonal and in a unique manufacturing dimension.
Sorting, packaging and storage:	during the sorting phase all the dimensional and qualitative characteristics are checked. This phase is carried out in appropriately equipped automatic lines. The tiles are placed inside punches / trestles appropriately packed with stretch film. The finished packed material is ready to be shipped by lorries or containers to the final user.

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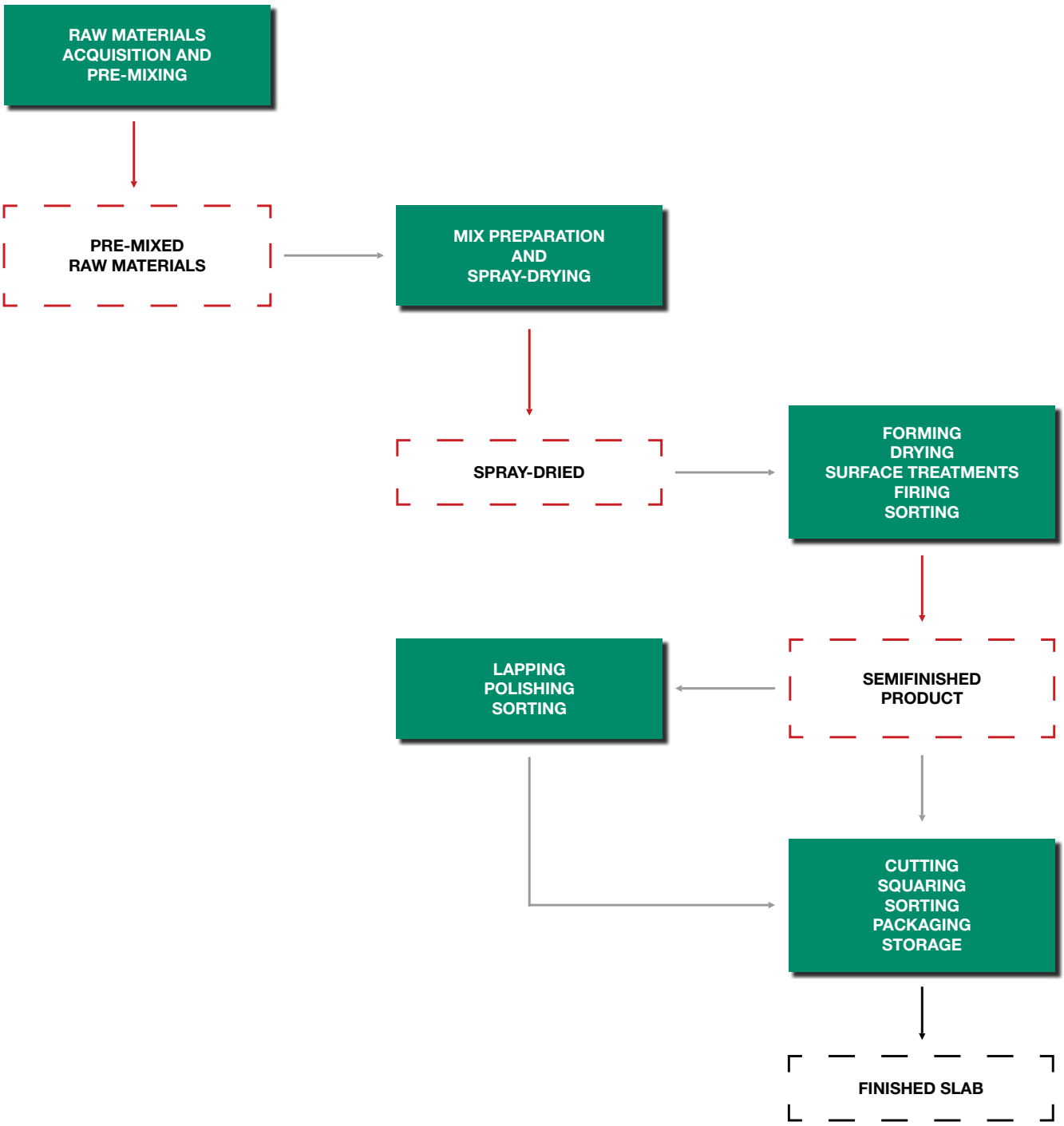

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Declared Unit	1 m² of porcelain stoneware slabs with different thicknesses Thicknesses: 6 mm – 8 mm – 9 mm – 10 mm – 12 mm.
Product Groups	This EPD refers to five product groups, one for each thickness considered. In accordance with the 2012 PCR: 01 version 2.3 "Construction products and construction services", a Reference Product representative of each thickness was selected within each product group. The variability of the values of the environmental indicators within each product group was assessed in relation to the respective Reference Product. The indicators "Abiotic deplation (non fossil)", "Use of secondary materials", "Consumption of net fresh water" show a variability of results within each group of products systematically higher than 10% for all the thicknesses considered. For the "Ozone layer depletion (ODP)", "Acidification" and "Eutrophication" indicators, the results obtained are generally less than 10% variability; in relation to some particular product groups, they can however show a variability slightly higher than 10%. The environmental performances reported in this EPD refer to each Reference Product.
System boundaries	**Cradle to gate** The Life Cycle Assessment was carried out considering the Product Stage (modules A1-A3 according to EN 15804 standard).
Data quality and data processing	Secondary Data from international databases (Ecoinvent 3.4) has been used for the **Upstream Process**. For the **Core Processes** both primary and secondary data were used. Primary data relates to energy consumption, waste generation, air emissions, water consumption, consumption of raw materials and auxiliary materials. Secondary data relates to some processes (eg. transport, packaging manufacturing, waste treatment). Primary data for inventory derive from data collection for the year 2017. Modeling of the system for the LCA study performed using SIMAPRO 8.5.0.0 software.
Geographical representativeness	Europe
Allocations, cut-off rules	Allocations related to input and output flows within the system were made on a mass-basis (annual production). Within the system boundaries, according to ISO 14040-44, flows less than 1% by mass and processes scarcely significant compared to the overall environmental performances, were excluded.

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The declared environmental performances refer to the Reference Products, selected for each thickness, and are representative of all the collections of products indicated in paragraph 3.

The values of the environmental indicators refer to 1 m2 of final product having a specified thickness.

Environmental Impact Categories

1 m^2 of final product

Environmental Indicator	Unit	Product Stage (Phases A1 – A3)				
		6 mm	8 mm	9 mm	10 mm	12 mm
		All collections	All collections	All collections	All collections	All collections
Depletion of abiotic resources (elements)	kg Sbeq	1,32E-05	1,17E-04	1,14E-04	3,21E-04	2,18E-05
Depletion of abiotic resources (fossil)	MJ	1,98E+02	1,73E+02	1,91E+02	2,01E+02	3,03E+02
Global Warming (GWP100a)	kg CO_2eq	1,42E+01	1,19E+01	1,32E+01	1,38E+01	2,12E+01
Ozone Deplation (ODP)	kg CFC11eq	2,12E-06	1,93E-06	2,13E-06	2,25E-06	3,36E-06
Photochemical Ozone Creation	kg C_2H_4eq	2,32E-03	1,94E-03	2,12E-03	2,17E-03	3,35E-03
Acidification of Land and Water	kg SO_2eq	4,75E-02	3,85E-02	4,24E-02	4,29E-02	7,03E-02
Eutrophication	kg PO_4eq	1,44E-02	1,00E-02	1,11E-02	1,14E-02	1,94E-02

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Use of Resources

1 m^2 of final product

Environmental Indicator	Unit	Product Stage (Phases A1 – A3)				
		6 mm	8 mm	9 mm	10 mm	12 mm
		All collections	All collections	All collections	All collections	All collections
Use of renewable primary energy excluding renewable primary energy resources used as raw materials	MJ	5,02E+01	4,71E+01	4,78E+01	4,81E+01	5,19E+01
Use of renewable primary energy resources used as raw materials	MJ	3,32E+01	1,50E+01	1,62E+01	1,50E+01	3,32E+01
Total use of renewable primary energy resources (primary energy and primary energy resources used as raw materials)	MJ	8,34E+01	6,21E+01	6,40E+01	6,31E+01	8,51E+01
Use of non-renewable primary energy excluding nonrenewable primary energy resources used as raw materials	MJ	2,11E+02	1,81E+02	2,01E+02	2,11E+02	3,25E+02
Use of non-renewable primary energy resources used as raw materials	MJ	5,29E-01	1,38E+00	1,32E+00	1,38E+00	5,29E-01
Total use of non-renewable primary energy resources (primary energy and primary energy resources used as raw materials)	MJ	2,11E+02	1,83E+02	2,02E+02	2,12E+02	3,26E+02
Use of secondary material	kg	0,49E+00	1,05E+00	2,24E+00	2,81E+00	1,01E+00
Use of recycled material (according to the LEED AND BREEAM protocols)	kg	8,06E+00	9,75E+00	11,2E+00	11,10E+00	16,39E+00
Use of renewable secondary fuels	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Use of non-renewable secondary fuels	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Use of net fresh water	m^3	8,95E-02	4,88E-02	5,41E-02	5,68E-02	1,25E-01

The "Use of secondary materials" indicator includes those materials that are recovered from a previous use or that are classified as waste. As part of the LEED and BREEAM protocols, recycled materials, in addition to the types mentioned above, also include materials classified as by-products.

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Waste production

1 m^2 of final product

Environmental Indicator	Unit	Product Stage (Phases A1 – A3)				
		6 mm	8 mm	9 mm	10 mm	12 mm
		All collections	All collections	All collections	All collections	All collections
Hazardous waste disposed	kg	2,03E-01	0,12E-01	2,94E-01	0,14E-01	3,85E-01
Non-hazardous waste disposed	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Radioactive waste disposed/stored	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00

NOTE: the values of the above indicators on waste production refer to phase A3 only.

The indicators "Abiotic Depletion", "Use of secondary materials", "Use of Net Freshwater" show a variability of results within each group of products always higher than 10% for all the thicknesses considered.

The following table shows, for each group of products, the variability ranges of the 3 indicators that systematically exceed the ± 10% threshold.

Indicator	Thickness (mm)	Variability Range	
		Minimum	Maximum
Abiotic Depletion kg Sbeq	6	1,32E-05	1,86E-04
	8	1,18E-05	1,61E-04
	9	1,28E-05	2,06E-04
	10	1,32E-05	3,21E-04
	12	2,18E-05	9,93E-05
Use of Secondary Materials kg	6	0,00E+00	4,90E-01
	8	0,00E+00	2,20E+00
	9	7,70E-01	2,50E+00
	10	1,20E+00	2,81E+00
	12	0,00E+00	1,01E+00
Use of net fresh water m^3	6	5,47E-02	8,95E-02
	8	4,63E-02	5,18E-02
	9	5,08E-02	8,13E-02
	10	5,45E-02	6,30E-02
	12	8,03E-02	1,28E-01

The variability of the results relative to the indicator "Consumption of non-fossil resources" (greater than 10%) is mainly determined by the quantity of coloring products (oxides) applied to the tile.

The content of colorants within the product groups depends on the aesthetic characteristics that must be given to each product.

The variability of the indicators "Use of Secondary Materials" and "Use of Net Freshwater" (greater than 10%) depends both on the composition recipe of the single tile (mixture) and on the content of colorants.

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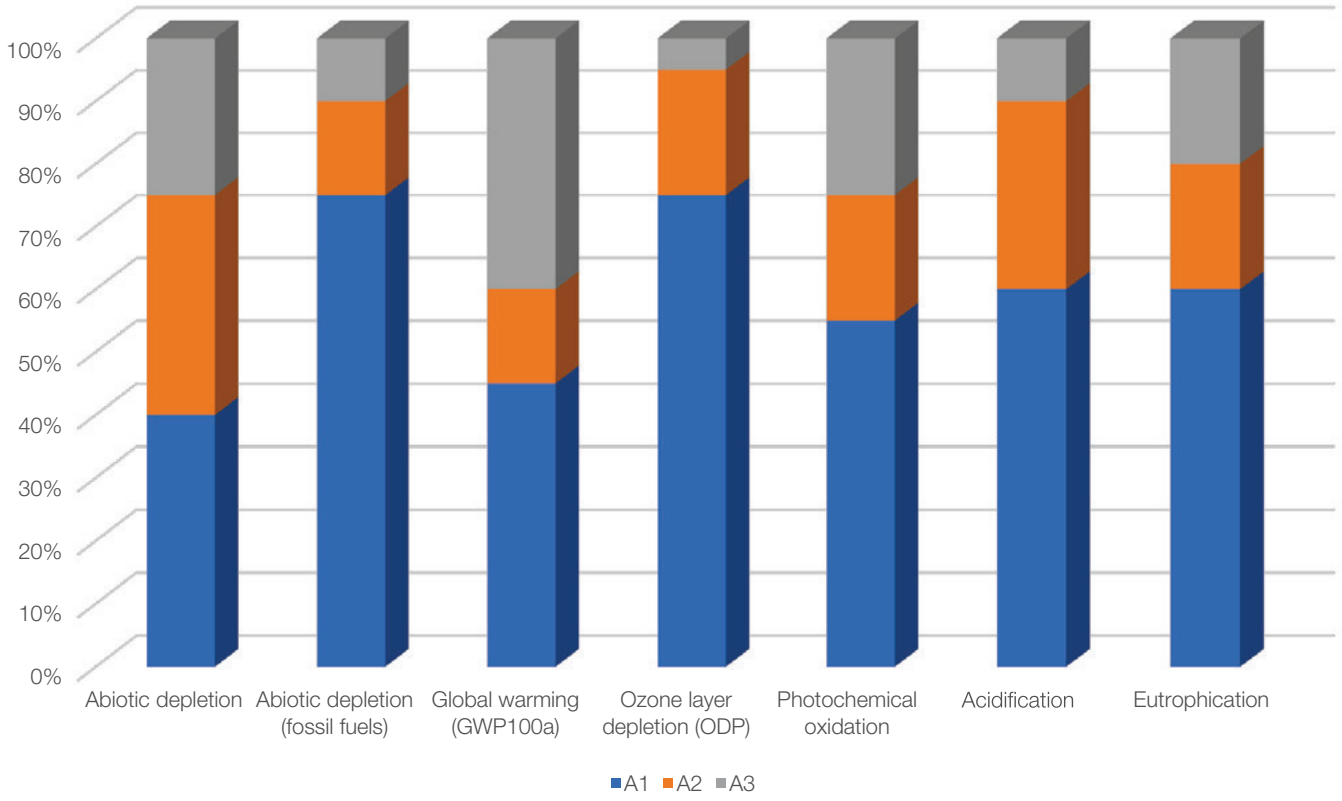
Interpretation of results

Phase **A1 Raw Materials** has the greatest environmental impacts within the life cycle studied for almost all indicators considered. This step includes the more impactful processes within the life cycle of the slab: power generation and manufacturing of colorants applied to the slab.

The **A2 Transport** phase has a significant effect as regards Abiotic Depletion, Photochemical Oxidation and Acidification.

The contribution of **Manufacturing A3** phase is particularly significant for the Global Warming indicator. An important contribution to CO_2 emissions is given by the thermal processes taking place in the manufacture of the slab, with particular reference to the combustion of natural gas in the firing process.



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CERTIFICATIONS

GranitiFiandre has always believed and invested in research and innovation, thus promoting a profound transformation of the technologies. The investments and changes have always been dealt with by paying attention to environmental and energy issues related to the technological cycle, developing and spreading a corporate philosophy aimed at respecting the environment, inspired by the conviction of its President that ECOLOGY means ECONOMY.

The entire production process of GranitiFiandre Group, thanks to the organization and the rigorous periodic checks of its industrial processes, has obtained the following certifications:

- ISO 9001 (certificate n. IT259355): Quality Management System

- ISO 14001 (certificate n. IT259457): Environmental Management System

- ISO 50001 (certificate n. IT264496): Energy Management System

- EMAS (registration number IT–000039): compliance with the EMAS European regulation on environmental management

- OHSAS 18001 (certificate n. IT258985): Health&Safety Management System

GranitiFiandre materials have been certified as complying with the parameters set by rating systems BREEAM (BRE Environmental Assessment Method) and LEED (Leadership in Energy and Environmental Design) by Green Building Council for sustainability (certificates n. 398/001G, 398/001E, 413/002, 398/001H, 398/002H, 398/001F, 398/001I, 1057/001).

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SUSTAINABILITY

Resources consumption
GranitiFiandre production is a closed-circuit and all the raw materials waste and wastewater are reused into the production cycle.
In our facilities no wastewater are generated from the manufacturing process, since the water used in the washing of the plant and for the squaring process for the almost totality is internally recycled, in particular in the phase of preparation of the dough, and minimally conferred outside for the recovery to authorized parties, in the form of ceramic sludge and unpurified water.
The internal scrap of raw materials as much as possible internally is reused in the preparation of the dough or delivered to external companies for the recovery of materials.

Air quality (use stage)
Our materials do not contain added VOC (volatile organic compounds). With regard to emissions of VOCs and formaldehyde in indoor environments, emissions of GranitiFiandre ceramic tiles are classified A +.
No need for sealants or waxes that could contribute to the emission of harmful VOCs in buildings. The stain-resistant surface reduces the need to use strong detergents. For routine cleaning, a pH-neutral detergent is all that is needed.

GreenGuard – GreenGuard Gold
The GREENGUARD Certification ensures that products intended for indoor use are characterized by the absence of emissions of volatile substances, helping to create healthier environments.
The GREENGUARD Gold Certification includes safety factors that take account of sensitive subjects (such as children and elderlies) and ensures that the use of a product is acceptable in environments such as schools and health facilities.
This certification is widely recognized and accepted by sustainable building programs and building codes worldwide. In the US, it is taken as a reference of the evaluation system of the CHPS buildings (The Collaborative for High Performance Schools) and LEED (Leadership in Energy and Environmental Design).
For more information on the GREENGUARD certified GranitiFiandre products, refer to the website: https://spot.ul.com/

End of life
GranitiFiandre Porcelain Stoneware slabs offer an additional guarantee of respect for the environment even in the disposal stage of the process residues. In fact all the materials at the end of their life cycle do not require treatments since, by virtue of the high chemical inertia, do not release substances into the environment. Precisely for this reason they are considered to all effects inert materials. They can be used as fill material for construction sites and as background material for road beds, thus reducing the need for quarried gravel. Any disposal must be performed through an authorized waste management, in compliance with national and local regulation.

For more information on GranitiFiandre Group or about this Environmental Product Declaration, you can contact:	**Mr. Christian Baccarani** Responsible for the Management Systems - Group GranitiFiandre phone number: 0536 819611. e-mail: info@granitifiandre.it
Alternatively you can write to:	GranitiFiandre S.p.a., Via Radici Nord 112, 42014 Castellarano (RE), Italy or visit the websites: www.granitifiandre.it www.eiffelgres.it www.irisfmg.it www.ariostea.it www.irisceramica.it www.sapienstone.it Please refer to the websites listed above for the list of products included in this EPD.
Technical support for the LCA study was provided by Bureau Veritas Nexta Srl	**www.nexta.bureauveritas.it.**

CEN standard EN 15804 served as the core PCR	
PCR:	PCR 2012:01 Construction products and Construction services, Version 2.3, 2018-11-15
PCR review was conducted by:	The Technical Committee of the International EPD® System. Chair: Filippo Sessa Contact via info@environdec.com
Independent verification of the declaration and data, according to ISO 14025:	☐ EPD process certification (Internal) ☒ EPD verification (External)
Third party verifier:	Ugo Pretato – Individual Verifier
Accredited or approved by:	Technical Commitee of "The International EPD® System"

STATEMENTS

Technical support for the LCA study was provided by Bureau Veritas Nexta Srl
EPD of construction products may not be comparable if they do not comply with EN 15804

EPDs belonging to the same product category but deriving from different Programs may not be comparable

EPD

tilebar

General Programme Instructions for the International EPD® System	ver 3.0
PCR 2012:01	ver 2.3, 2018-11-15 “Construction products and construction services”
EN 15804:2012 + A1:2013	Sustainability of Construction Works
UNI EN ISO 14025:2010	Environmental labels and declarations -- Type III environmental declarations -- Principles and procedures
UNI EN ISO 14040: 2006	Life cycle assessment -- Principles and framework
UNI EN ISO 14044:2006	Life cycle assessment -- Requirements and guidelines
ISO 13006	Ceramic tiles -- Definitions, classification, characteristics and marking
EN 14411/ Ceramic tiles	Definitions, classification, characteristics and marking
EN ISO 10545-2	Technical Standard for Ceramic Tiles – Determination of dimensions and surface quality
EN ISO 10545-3	Technical Standard for Ceramic Tiles - Determination of water absorption apparent porosity, apparent relative density and bulk density
EN ISO 10545-4	Technical Standard for Ceramic Tiles - Determination of modulus of rupture and breaking strength
EN ISO 10545-6	Technical Standard for Ceramic Tiles - Determination of resistance to deep abrasion for unglazed tiles
EN ISO 10545-9	Technical Standard for Ceramic Tiles - Determination of resistance to thermal shock
EN ISO 10545-12	Technical Standard for Ceramic Tiles - Determination of frost resistance
EN ISO 10545-13	Technical Standard for Ceramic Tiles - Determination of chemical resistance
EN ISO 10545-14	Technical Standard for Ceramic Tiles - Determination of resistance to stains
Decision EC 96/603	Commission Decision of 4 October 1996 establishing the list of products belonging to Classes A 'No contribution to fire' provided for in Decision 94/611/EC implementing Article 20 of Council Directive 89/106/EEC on construction products