



Marble based products

Environmental Product Declaration

In accordance with ISO 14025:2006 and EN 15804:2012+A2:2019

PCR 2019:14: Construction products, version 1.11

CPC CODE: 3754- Tiles, flagstones, bricks and similar articles, of cement, concrete or artificial stone

PROGRAMME: The International EPD® System - www.environdec.com

PROGRAMME OPERATOR: EPD International AB

REGISTRATION NUMBER: S-P-06369

DATE OF PUBLICATION: 10/01/2023

DATE OF VALIDITY: 14/12/2027

GEOGRAPHICAL SCOPE: International

<https://www.quarella.com/it/>

An EPD should provide current information and may be updated if conditions change. The stated validity is therefore subject to the continued registration and publication at www.environdec.com.



PROGRAMME INFORMATION

Programme: The International EPD® System
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Product category rules (PCR):
PCR 2019:14 Construction products, version 1.11

PCR review was conducted by:
The Technical Committee of the International EPD® System. See www.environdec.com/TC for a list of members. Review chair: Claudia A. Peña, University of Concepción, Chile. The review panel may be contacted via the Secretariat www.environdec.com/contact.

CEN standard EN 15804 serves as the core PCR

Independent third-party verification of the declaration and data, according to ISO 14025:2010:

External Internal

covering:

EPD process certification EPD verification

Third party verifier: Ugo Pretato, Studio Fieschi & soci Srl

Accredited by: The International EPD System

Procedure for follow-up during EPD validity involves third party verifier:

Yes No

The EPD owner has the sole ownership, liability and responsibility of the EPD. ISO 14025: "EPDs within the same product category but from different programmes may not be comparable." EN 15804: "EPDs of construction products may not be comparable if they do not comply with EN 15804."

GENERAL INFORMATION

OWNER OF THE EPD

Q.R.B.G. S.r.l., Via Napoleone 19, Frazione Ponton, 37015
Sant'Ambrogio di Valpolicella, Verona, Italy

CONTACTS

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COMPANY DESCRIPTION

Q.R.B.G. S.r.l. manufactures composite stone products under the Quarella brand, available in a wide combination of sizes, colours and finishes for numerous applications. Experience and expertise combined with particular attention to design enable us to offer innovative solutions for all environments, with charm and elegance that express a contemporary mood and are synonymous with the *Italian lifestyle*. The products, suitable for flooring, cladding and creative interior design solutions, are aimed at the construction industry and the best interior architects and designers.

Quarella items are produced in two factories located close to each other in Pescantina and Domegliara, in the Italian province of Verona.



PESCANTINA FACTORY



DOMEGLIARA FACTORY

PRODUCTION CYCLE



01
Raw materials

Pescantina factory

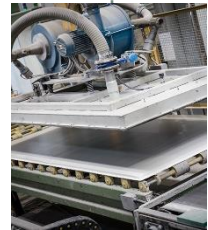
Granules of various sizes and powders, polyester resin binder, pigments and additional aesthetic materials



02
Mixing

Pescantina factory

The raw materials are mixed using a predefined formula



03
Compaction by vibro-compression under vacuum

Pescantina factory

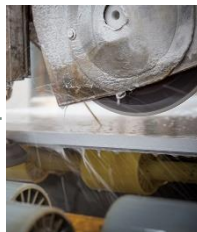
The mixture is placed in the formwork and compressed in a "vibro-compaction" chamber under vacuum conditions.



06
Quality control

Domegliara factory

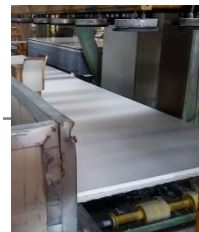
Quality control, paying particular attention to aesthetic, physical and chemical characteristics to ensure a high-quality product.



05
Processing of the finished product

Domegliara factory

Cutting, polishing and finishing operations.



04
Curing

Pescantina factory

The product is hardened in special heated chambers designed to achieve complete polymerisation, with the aim of obtaining optimal performance characteristics.

CERTIFICATIONS

Over the years, Quarella has developed technological expertise that makes its products a benchmark for the entire market. The company offers a wide range of products, finishes and interior design solutions for flooring, wall cladding, worktops and decorative elements in the name of cutting-edge design.

Quarella products do not contain any substances of very high concern (SVHC) included in the ECHA Candidate List in concentrations greater than 0.01% (Material Inventory to 100ppm).



Quarella products have been mapped in accordance with the parameters established by the Green Building Council's **LEED** and **WELL** assessment systems for sustainability.



All Quarella products are **Greenguard Gold**-certified. This certification was established by the GREENGUARD Environmental Institute (GEI) to meet the indoor air quality requirements of schools, nurseries and other sensitive environments. As such, it imposes stricter chemical emission limits than the original certification.



The GEI's mission is to protect health and ensure high living standards by improving indoor air quality and reducing people's exposure to chemicals and other pollutants. For more information on GREENGUARD-certified Quarella products, please refer to the website: <https://spot.ul.com>



All Quarella products have received the **NSF/ANSI** standard. Mark 51 (National Sanitation Foundation – Food Equipment Materials) is applicable to materials and surfaces used to manufacture components in contact with food products. Initial type tests and periodic tests conducted at NSF laboratories on Quarella products regularly demonstrate their compliance with the strict chemical analysis criteria necessary for their certification and their suitability for use as kitchen worktops in contact with food.



DECLARE is a label of ingredients for construction products. The goal is to position the construction products sector within a transparent materials economy. This allows Quarella to demonstrate its commitment to providing consumers with honest information when they are selecting products. Product declaration labels are provided by the **International Living Future Institute (ILFI)**.

PRODUCT INFORMATION

PRODUCTS ANALYSED

The Quarella product is a composite material with a natural appearance, thanks to its composition consisting of 90-95% natural raw materials (marble) and the remaining 5-10% polymeric binders and pigments. Advanced industrial processes and machinery, over 50 years' experience in the industry and attention to detail ensure the perfect combination of natural aesthetics and technical performance. This makes the product suitable for multiple applications, including but not limited to:

- Flooring : airports, shopping centers, stations, hotels, residential, etc.
- Cladding: both internal and external facades
- Interior design: kitchen countertops, bathroom tops, steps and risers, window sills, etc.

Marble-based products are manufactured in blocks with an indicative volume of 3 m³ and undergo the exclusive post-curing process called Q-Zero. After about a week the blocks are cut into rough slabs measuring 3050 x 1240 mm, then undergo the subsequent polishing processes and any cutting to the required sizes.

Quarella slabs can be supplied with different surface finishes, from the classic and most popular glossy surface to smooth, brushed or structured (velvet touch, sandblasted, bush-hammered, etc.)



UN CPC CODE

3754– Tiles, flagstones, bricks and similar articles, of cement, concrete or artificial stone

GEOGRAPHICAL AREA

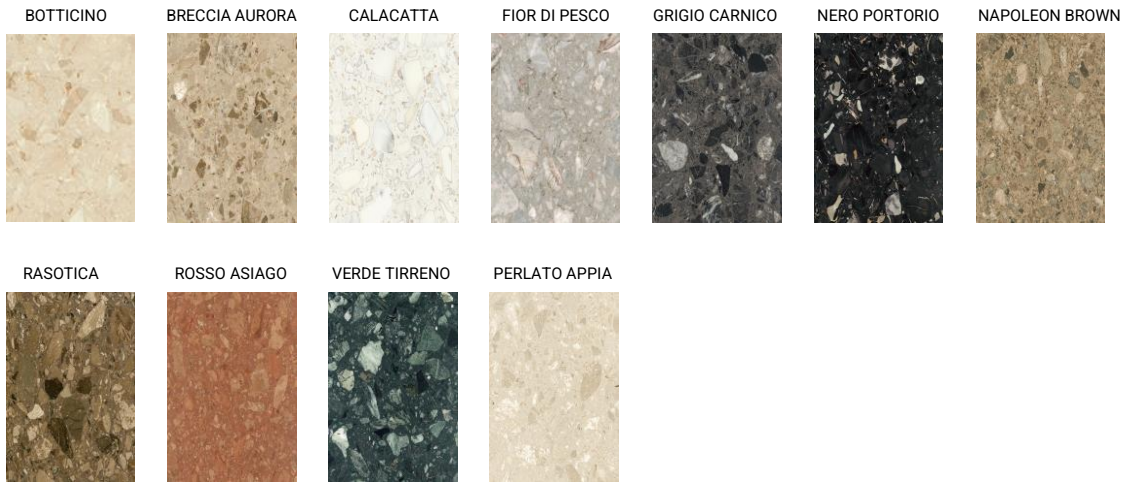
Italy

NAME OF PRODUCTS

This EPD refers to three lines of marble-based agglomerate products made by Quarella and used for multiple applications, called: TRADIZIONALE, URBAN GRAIN and FLAIR. For these commercial lines, 80% of production was analysed so that all products can be represented, in their thicknesses, by the one with the highest potential environmental impacts in the GWP-GHG indicator.

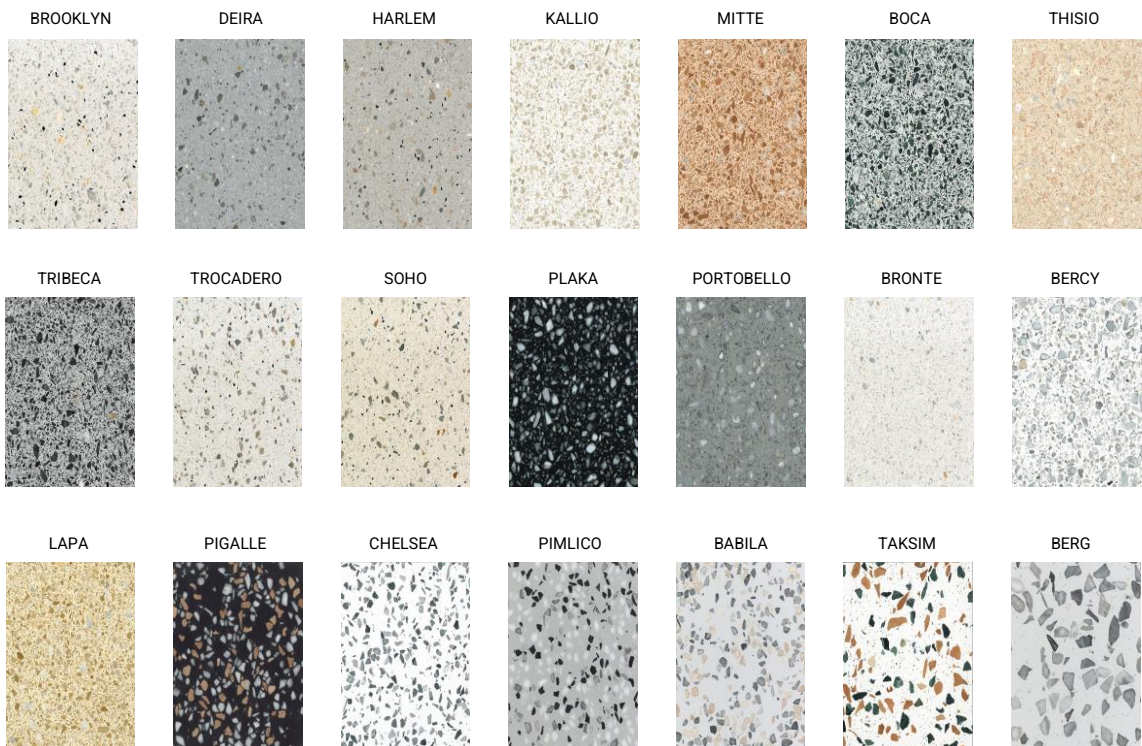
TRADIZIONALE LINE

The products in the TRADIZIONALE line consist of 93-95% natural marble granules with a maximum size of up to 100 mm, 5-7% polyester resin-based binder, and the remaining part of inorganic pigments and functional additives. The thicknesses available for this product line are 12 mm, 20 mm and 30 mm.



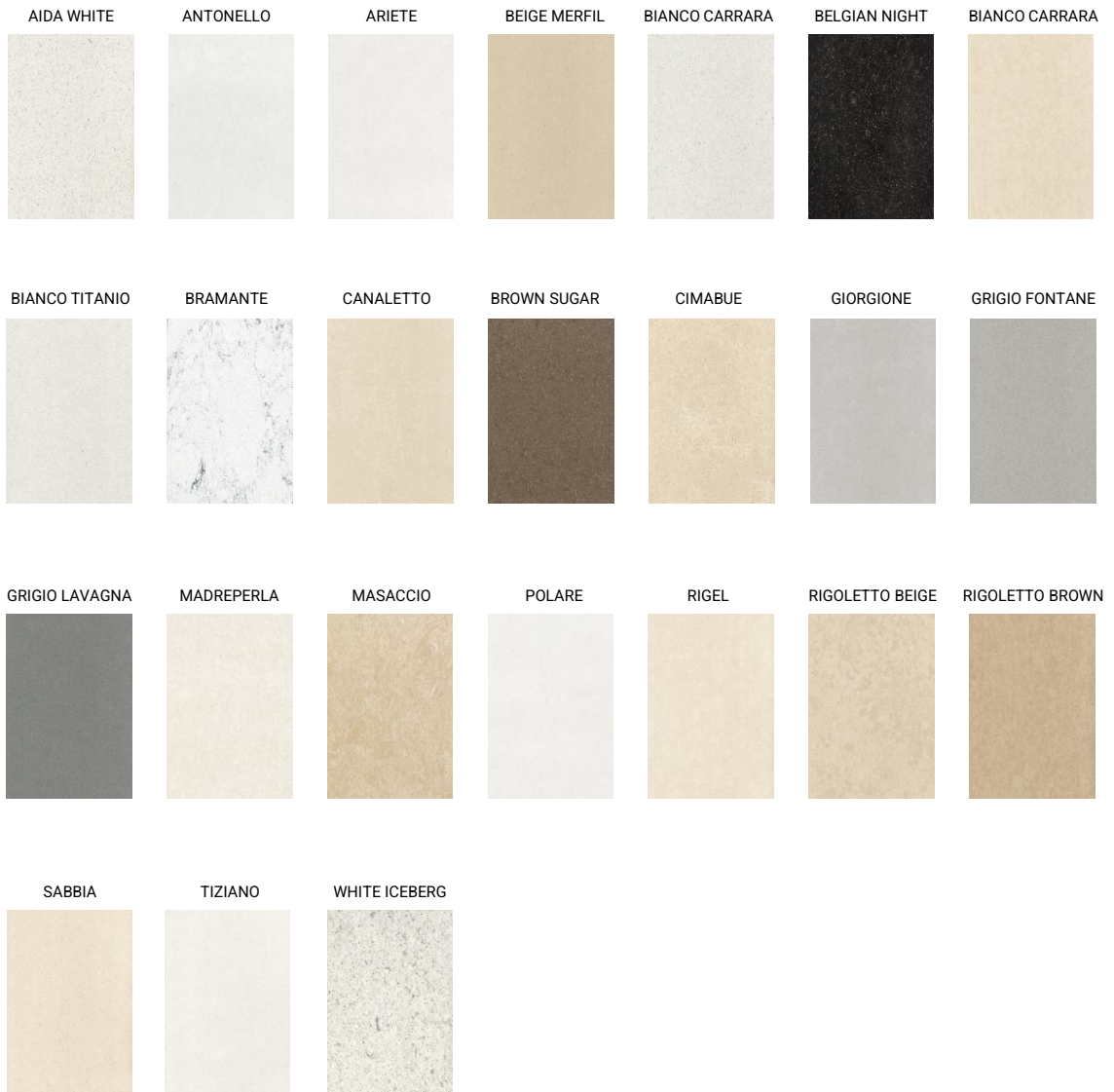
URBAN GRAIN LINE

The products in the URBAN GRAIN line consist of 92-94% natural marble granules with a maximum size of up to 20 mm, 6-8% polyester resin-based binder, and the remaining part of inorganic pigments and functional additives. The thicknesses available for this product line are 12 mm, 20 mm and 30 mm.



FLAIR LINE

The products in the FLAIR line consist of 90-97% natural marble granules with a maximum size of up to 4 mm, 7 - 10% polyester resin-based binder, and the remaining part of inorganic pigments and functional additives. The thicknesses available for this product line are 12 mm, 20 mm and 30 mm.



TECHNICAL PROPERTIES

CHARACTERISTICS	STANDARD	UNIT	RANGE OF VALUES TRADIZIONALE	RANGE OF VALUES URBAN GRAIN	RANGE OF VALUES FLAIR
Density	EN - 14617/1	kg/dm ³	2,45 - 2,70	2,40 - 2,65	2,40 - 2,55
Water absorption	EN - 14617/1	%w/w	< 0,35 *	< 0,25	< 0,15
Flexural strength	EN - 14617/2	MPa	> 10	> 15	> 20
Compressive strength	EN - 14617/15	MPa	> 80	> 80	> 100
Abrasion resistance	EN - 14617/4	mm ³	250 - 500	300-481	288 - 481
		mm	31 - 39	33 – 38,5	32,5 – 38,5
Linear thermal expansion coefficient	EN - 14617/11	°C ⁻¹	12- 16 x 10 ⁻⁶	15 - 21 x 10 ⁻⁶	17 - 27 x 10 ⁻⁶
Dynamic coefficient of friction	ANSI A.137.1:2012	--	Levigato 200 >0.42 Valori indicativi	Levigato 200 >0.42 Valori indicativi	Levigato 200 >0.42 Valori indicativi
Pendulum test value	BS7976-2:2002 (Slider 96)	--	Levigato 200 ASCIUTTO>45 BAGNATO >15 Valori indicativi	Levigato 200 ASCIUTTO>45 BAGNATO >15 Valori indicativi	Levigato 200 ASCIUTTO>45 BAGNATO >15 Valori indicativi
Dimensional stability	EN - 14617/12 (60 x 60 x 1,2)cm	Class	A	A	A
Freeze and thaw resistance	EN - 14617/5	--	Variabile in base alla tipologia del marmo	Variabile in base alla tipologia del marmo	Resiste
Reaction to fire	EN - 13501/1	--	A2 fl - S1	A2 fl - S1	A2 fl - S1

* Except: Napoleon Brown, Verde Tirreno, Perlato Appia

INFORMATION ON LCA METHODOLOGY

TRADIZIONALE LINE

DECLARED UNIT

1 m² of product FIOR DI PESCO, thicknesses 12 - 20 - 30 mm

TIME REPRESENTATIVENESS

The primary data used for the life cycle assessment refers to a period of 12 months, considering the production of the reference year (2020)

DATABASE AND SOFTWARE

Database: Ecoinvent 3.7
LCA software: SimaPro, version 9.2.0.2.

SYSTEM BOUNDARIES

The "cradle-to-gate with options" approach is used for this study.
Modules A1 to A5, C1 to C4 and Module D are included, in accordance with the reference PCR and the EN 15804:2012+A2:2019 standard.

	Sourcing of raw materials	Transport	Production	Transport	Installation process	Use	Maintenance	Repair	Replacement	Restructuring	Energy during use	Water during use	Disassembly	Transport	Waste treatment	Disposal	Reuse / Energy recovery / potential recycling
Modules declared	A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
	X		X	X	MND	MND	MND	MND	MND	MND	MND	MND	X	X	X	X	X
Geographical representativeness	GLO	GLO	IT	IT	IT								IT	IT	IT	IT	IT
Specific data	> 90%																
Product variability range	12 mm: - 8,4% 20 mm: - 10% 30 mm: - 11,1%																
Factory variability range	not relevant																

System boundaries
"X" = included in the study
"MND" = module not declared

DECLARATION OF CONTENT

The products of the Marble TRADIZIONALE line are mainly composed of various inorganic minerals, resins, pigments and additives, all in different proportions depending on the product. Quarella products do not contain any substances of very high concern (SVHC) included in the ECHA Candidate List in concentrations greater than 0.01% (Material Inventory to 100ppm).

Marble line – TRADIZIONALE line, FIOR DI PESCO product, 12 mm thickness				
Materials	Weight (kg)	Post-consumer ** materials Weight -%	Renewable materials, weight -%	Pre-consumer ** materials Weight - %
Grit, ventilated and crystalline	29,37	0%	0%	23%
Organic component	1,52	0%	0%	0%
Pigments	0,012	0%	0%	0%
Total product	30,90			

Marble line – TRADIZIONALE line, FIOR DI PESCO product, 20 mm thickness				
Materials	Weight (kg)	Post-consumer ** materials Weight -%	Renewable materials, weight -%	Pre-consumer ** materials Weight - %
Grit, ventilated and crystalline	48,94	0%	0%	23%
Organic component	2,54	0%	0%	0%
Pigments	0,019	0%	0%	0%
Total product	51,50			

Marble line – TRADIZIONALE line, FIOR DI PESCO product, 30 mm thickness				
Materials	Weight (kg)	Post-consumer ** materials Weight -%	Renewable materials, weight -%	Pre-consumer ** materials Weight - %
Grit, ventilated and crystalline	73,41	0%	0%	23%
Organic component	3,81	0%	0%	0%
Pigments	0,029	0%	0%	0%
Total product	77,25			

** - Secondary raw materials of other marble products in the section «Additional Information»

Packaging *	Weight (kg)	Weight -% (in the 12 mm product)	Weight -% (in the 20 mm product)	Weight -% (in the 30 mm product)
Cardboard	0,0383	0,12%	0,07%	0,05%
Wood	0,186	0,59%	0,36%	0,24%
Polyethylene	0,00648	0,021%	0,01%	0,01%
Polystyrene	0,000401	> 0,01%	> 0,01%	> 0,01%
Polypropylene	0,000738	> 0,01%	> 0,01%	> 0,01%
Polyvinylchloride	0,176	0,56%	0,34%	0,23%
Total packaging	0,408			

* - The weight of packaging has been assumed the same for all the thicknesses

INFORMATION ON LCA METHODOLOGY

URBAN GRAIN LINE

DECLARED UNIT

1 m² of product HARLEM, thicknesses 12 - 20 - 30 mm

TIME REPRESENTATIVENESS

The primary data used for the life cycle assessment refers to a period of 12 months, considering the production of the reference year (2020)

DATABASE AND SOFTWARE

Database: Ecoinvent 3.7
LCA software: SimaPro, version 9.2.0.2.

SYSTEM BOUNDARIES

The "cradle-to-gate with options" approach is used for this study.
Modules A1 to A5, C1 to C4 and Module D are included, in accordance with the reference PCR and the EN 15804:2012+A2:2019 standard.

	Sourcing of raw materials	Transport	Production	Transport	Installation process	Use	Maintenance	Repair	Replacement	Restructuring	Energy during use	Water during use	Disassembly	Transport	Waste treatment	Disposal	Reuse / Energy recovery / potential recycling
Modules declared	A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
	X		X	X	MND	MND	MND	MND	MND	MND	MND	MND	X	X	X	X	X
Geographical representativeness	GLO	GLO	IT	IT	IT								IT	IT	IT	IT	IT
Specific data	> 90%																
Product variability range	12 mm: - 1,6% 20 mm: - 1,8% 30 mm: - 1,2%																
Factory variability range	not relevant																

DECLARATION OF CONTENT

The products of the Marble URBAN GRAIN line are mainly composed of various inorganic minerals, resins, pigments and additives, all in different proportions depending on the product. Quarella products do not contain any substances of very high concern (SVHC) included in the ECHA Candidate List in concentrations greater than 0.01% (Material Inventory to 100ppm).

Marble line – TRADIZIONALE line, HARLEM product, 12 mm thickness				
Materials	Weight (kg)	Post-consumer ** materials Weight -%	Renewable materials, weight -%	Pre-consumer ** materials Weight - %
Grit, ventilated and crystalline	28,18	0%	0%	19%
Organic component	2,02	0%	0%	0%
Pigments	0,10	0%	0%	0%
Total product	30,30			

Marble line – TRADIZIONALE line, HARLEM product, 20 mm thickness				
Materials	Weight (kg)	Post-consumer ** materials Weight -%	Renewable materials, weight -%	Pre-consumer ** materials Weight - %
Grit, ventilated and crystalline	46,97	0%	0%	19%
Organic component	3,36	0%	0%	0%
Pigments	0,17	0%	0%	0%
Total product	50,50			

Marble line – TRADIZIONALE line, HARLEM product, 30 mm thickness				
Materials	Weight (kg)	Post-consumer ** materials Weight -%	Renewable materials, weight -%	Pre-consumer ** materials Weight - %
Grit, ventilated and crystalline	70,46	0%	0%	19%
Organic component	5,04	0%	0%	0%
Pigments	0,26	0%	0%	0%
Total product	75,75			

** - Secondary raw materials of other marble products in the section «Additional Information»

Packaging *	Weight (kg)	Weight -% (in the 12 mm product)	Weight -% (in the 20 mm product)	Weight -% (in the 30 mm product)
Cardboard	0,0383	0,12%	0,08%	0,05%
Wood	0,186	0,60%	0,36%	0,24%
Polyethylene	0,00648	0,021%	0,01%	0,01%
Polystyrene	0,000401	> 0,01%	> 0,01%	> 0,01%
Polypropylene	0,000738	> 0,01%	> 0,01%	> 0,01%
Polyvinylchloride	0,176	0,57%	0,35%	0,23%
Total packaging	0,408			

* - The weight of packaging has been assumed the same for all the thicknesses

INFORMATION ON LCA METHODOLOGY

FLAIR LINE

DECLARED UNIT

1 m² of product POLARE, thicknesses 12 - 20 - 30 mm

TIME REPRESENTATIVENESS

The primary data used for the life cycle assessment refers to a period of 12 months, considering the production of the reference year (2020)

DATABASE AND SOFTWARE

Database: Ecoinvent 3.7
LCA software: SimaPro, version 9.2.0.2.

SYSTEM BOUNDARIES

The "cradle-to-gate with options" approach is used for this study.
Modules A1 to A5, C1 to C4 and Module D are included, in accordance with the reference PCR and the EN 15804:2012+A2:2019 standard.

	Sourcing of raw materials	Transport	Production	Transport	Installation process	Use	Maintenance	Repair	Replacement	Restructuring	Energy during use	Water during use	Disassembly	Transport	Waste treatment	Disposal	Reuse / Energy recovery / potential recycling
Modules declared	A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
	X		X	X	MND	MND	MND	MND	MND	MND	MND	MND	X	X	X	X	X
Geographical representativeness	GLO	GLO	IT	IT	IT								IT	IT	IT	IT	IT
Specific data	> 90%																
Product variability range	12 mm: - 18,2% 20 mm: - 20,3% 30 mm: - 21,5%																
Factory variability range	not relevant																

DECLARATION OF CONTENT

The products of the Marble FLAIR line are mainly composed of various inorganic minerals, resins, pigments and additives, all in different proportions depending on the product. Quarella products do not contain any substances of very high concern (SVHC) included in the ECHA Candidate List in concentrations greater than 0.01% (Material Inventory to 100ppm).

Marble line – TRADIZIONALE line, POLARE product, 12 mm thickness				
Materials	Weight (kg)	Post-consumer ** materials Weight -%	Renewable materials, weight -%	Pre-consumer ** materials Weight - %
Grit, ventilated and crystalline	26,47	0%	0%	0%
Organic component	2,94	0%	0%	0%
Pigments	0,29	0%	0%	0%
Total product	29,70			

Marble line – TRADIZIONALE line, POLARE product, 20 mm thickness				
Materials	Weight (kg)	Post-consumer ** materials Weight -%	Renewable materials, weight -%	Pre-consumer ** materials Weight - %
Grit, ventilated and crystalline	44,12	0%	0%	0%
Organic component	4,90	0%	0%	0%
Pigments	0,48	0%	0%	0%
Total product	49,50			

Marble line – TRADIZIONALE line, POLARE product, 30 mm thickness				
Materials	Weight (kg)	Post-consumer ** materials Weight -%	Renewable materials, weight -%	Pre-consumer ** materials Weight - %
Grit, ventilated and crystalline	66,17	0%	0%	0%
Organic component	7,35	0%	0%	0%
Pigments	0,72	0%	0%	0%
Total product	74,25			

** - Secondary raw materials of other marble products in the section «Additional Information»

Packaging *	Weight (kg)	Weight -% (in the 12 mm product)	Weight -% (in the 20 mm product)	Weight -% (in the 30 mm product)
Cardboard	0,0383	0,13%	0,08%	0,05%
Wood	0,186	0,62%	0,37%	0,25%
Polyethylene	0,00648	0,022%	0,01%	0,01%
Polystyrene	0,000401	> 0,01%	> 0,01%	> 0,01%
Polypropylene	0,000738	> 0,01%	> 0,01%	> 0,01%
Polyvinylchloride	0,176	0,59%	0,35%	0,24%
Total packaging	0,408			

* - The weight of packaging has been assumed the same for all the thicknesses

SCENARIOS AND TECHNICAL INFORMATION

The life cycle assessment includes all the process units considered relevant and with a key and predominant role in identifying the impacts of the products analysed.

PRODUCTION PHASES

Module A1, "sourcing of raw materials", examines and estimates the impact generated by procuring raw materials through extracting and processing materials:

- organic component, ventilated, crystalline and grit
- packaging
- auxiliary materials for production

Module A2, "transport of raw materials", examines and estimates the impact generated by the transport of raw materials and semi-finished products from the manufacturer to the factory warehouse.

Module A3 describes the "core" activities of the Q.R.B.G. S.r.l. factories, where the marble line slabs are produced. This is where the internal processing of raw materials, mixing and assembly take place to make the finished product.

CONSTRUCTION PHASES

Module A4 includes the transport of the finished products to the place of installation. We consider the 2020 sales of each commercial reference analysed and the shipment of products that year to different Italian provinces (the Italian scenario was chosen because it remains constant over time, while European and Global scenarios change depending on projects and other factors).

Module A5 analyses the installation of products on-site (Italian context). The products are manually installed using cementitious adhesive. The treatment of waste (packaging and scraps) after the installation process was considered in Module A5, while the environmental benefits and loads of recycling were included in Module D.

PARAMETERS	VALUES
Transport distance A4	Average distance to customers
Transport distance A5	Average distance 50 km
Type of transport	Truck, EURO 4
Scraps during installation	5%
Inert end of life	78.10% - Recycling 21.90% - Disposal

PARAMETERS	VALUES
Plastic packaging end of life	44.5% - Recycling 43% - Energy recovery 12.50% - Disposal
Wood packaging end of life	64.68% - Recycling 35.32% - Disposal
Cardboard packaging end of life	87.30% - Recycling 7.50% - Energy recovery 12.50% - Disposal

SCENARIOS AND TECHNICAL INFORMATION

END OF LIFE PHASES

Module C1 analyses the removal of the slabs at the end of their useful life or at the end of life of the building where they are installed. Removal is done manually by removal personnel.

Module C2 includes the transport by road of end-of-life products, i.e. to the waste treatment centre, for all materials sent for recycling or energy recovery, or for final disposal in landfill.

Module C3 provides information and analyses the waste preparation and treatment processes until the product reaches the status of waste to be subsequently processed through recycling or energy recovery.

Module C4 considers the deposit of part of the product, considered inert, in landfill.

PARAMETERS	VALUES
Transport distance C2	Average distance 50 km
Type of transport	Truck, EURO 4

PARAMETERS	VALUES
Inert end of life	78.10% - Recycling 21.90% - Disposal

Although the products can be recycled at the end of their first useful life, the end-of-life scenario based on ISPRA data was assumed, thus opting for the most conservative approach.

MODULE D

Module D includes the potential environmental loads and benefits of reusing, recovering and/or recycling the material.

According to EN 15804:2012+A2:2019, all the benefits and loads declared from the net flows out of the system of products not allocated as co-products and which have passed end-of-waste status must be included in Module D. The benefits considered in Module D originate from recycling packaging and liner or from incinerating packaging.

ENVIRONMENTAL IMPACTS TRADIZIONALE LINE

TRADIZIONALE LINE 1 m² of FIOR DI PESCO product, 12 mm thickness

Potential environmental impacts: 1 m² of FIOR DI PESCO product 12 mm thickness

Core environmental impact indicator	Unit	A1-3	A4	A5	C1	C2	C3	C4	D
Climate change	kgCO ₂ eq	1,88E+01	1,21E+00	2,38E+00	0,00E+00	7,92E-01	7,79E-03	2,91E-02	1,59E+00
Climate change - Fossil	kgCO ₂ eq	1,90E+01	1,20E+00	2,24E+00	0,00E+00	7,91E-01	7,55E-03	2,90E-02	8,47E-01
Climate change - Biogenic	kgCO ₂ eq	-2,25E-01	8,82E-04	1,39E-01	0,00E+00	3,64E-04	2,25E-04	9,36E-05	7,45E-01
Climate change - Land use and LU change	kgCO ₂ eq	1,28E-02	3,54E-04	7,60E-04	0,00E+00	4,44E-04	1,70E-05	5,69E-06	-1,16E-03
Climate change – GWP-GHG	kgCO ₂ eq	1,77E+01	1,19E+00	2,18E+00	0,00E+00	7,85E-01	7,49E-03	2,86E-02	8,56E-01
Ozone depletion	kgCFC11eq	2,64E-06	2,85E-07	1,60E-07	0,00E+00	1,70E-07	6,35E-10	1,41E-08	1,70E-07
Acidification	mol H+eq	7,60E-02	6,16E-03	8,21E-03	0,00E+00	3,83E-03	4,18E-05	2,83E-04	2,54E-03
Eutrophication, freshwater	kg P eq	3,87E-03	8,59E-05	3,89E-04	0,00E+00	8,38E-05	7,24E-06	2,04E-06	5,89E-05
Eutrophication, freshwater	kg PO ₄ eq	1,19E-02	2,64E-04	1,19E-03	0,00E+00	2,57E-04	2,22E-05	6,25E-06	1,81E-04
Eutrophication, marine	kg N eq	1,95E-02	2,10E-03	2,36E-03	0,00E+00	1,22E-03	7,16E-06	1,06E-04	1,79E-03
Eutrophication, terrestrial	mol N eq	1,72E-01	2,30E-02	2,27E-02	0,00E+00	1,33E-02	6,80E-05	1,17E-03	1,16E-02
Photochemical ozone formation	kg NMVOCeq	9,66E-02	6,88E-03	8,72E-03	0,00E+00	3,84E-03	1,80E-05	3,34E-04	3,79E-03
Resource use, minerals and metals ²	kg Sb eq	2,01E-04	2,07E-05	1,77E-05	0,00E+00	3,92E-05	2,58E-08	2,56E-07	6,16E-05
Resource use, fossils ²	MJ	2,93E+02	1,89E+01	1,93E+01	0,00E+00	1,18E+01	1,54E-01	9,35E-01	5,50E+00
Water scarcity ²	m ³ depriv.	9,88E+00	6,13E-02	4,94E-01	0,00E+00	4,21E-02	1,65E-03	2,84E-03	-4,06E-01

2 - The results of this environmental impact indicator should be used with caution because there are high levels of uncertainty about these results or experience with the indicator is limited

Potential resource consumption: 1 m² of FIOR DI PESCO product 12 mm thickness

Core environmental impact indicator	Unit	A1-3	A4	A5	C1	C2	C3	C4	D
PERE	MJ	3,38E+01	2,38E-01	2,97E+00	1,20E+01	2,53E-01	2,56E-02	1,44E-02	-6,67E+00
PERM	MJ	7,96E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PERT	MJ	4,18E+01	2,38E-01	2,97E+00	1,20E+01	2,53E-01	2,56E-02	1,44E-02	-6,67E+00
PENRE	MJ	2,29E+02	2,00E+01	2,05E+01	3,00E+00	1,25E+01	1,61E-01	9,93E-01	5,53E+00
PENRM	MJ	8,66E+01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PENRT	MJ	3,16E+02	2,00E+01	2,05E+01	3,00E+00	1,25E+01	1,61E-01	9,93E-01	5,53E+00
Use of secondary material	kg	6,98E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Use of renewable secondary fuels	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Use of non-renewable secondary fuels	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Use of net fresh water	m ³	2,56E-01	2,15E-03	1,86E-02	0,00E+00	1,67E-03	1,26E-04	1,11E-03	-8,00E-03

TRADIZIONALE LINE 1 m² of FIOR DI PESCO product, 12 mm thickness

Waste production: 1 m² of FIOR DI PESCO product 12 mm thickness

Core environmental impact indicator	Unit	A1-3	A4	A5	C1	C2	C3	C4	D
Hazardous waste disposed	kg	4,07E-04	4,57E-05	2,87E-05	0,00E+00	3,27E-05	7,48E-08	1,04E-06	5,15E-05
Non-hazardous waste disposed	kg	3,12E+00	1,64E+00	8,94E-01	0,00E+00	3,58E-01	5,43E-04	6,77E+00	6,18E-01
Radioactive waste disposed	kg	5,23E-04	1,29E-04	7,99E-05	0,00E+00	7,82E-05	1,08E-06	6,37E-06	1,08E-04

Output flows : 1 m² of FIOR DI PESCO product 12 mm thickness

Core environmental impact indicator	Unit	A1-3	A4	A5	C1	C2	C3	C4	D
Components for re-use	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Materials for recycling	kg	3,08E+00	0,00E+00	1,78E+00	0,00E+00	0,00E+00	2,41E+01	0,00E+00	0,00E+00
Materials for energy recovery	kg	1,21E+00	0,00E+00	8,19E-02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Exported energy, electrical	MJ	3,94E-01	0,00E+00	1,93E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Exported energy, thermal	MJ	8,42E-01	0,00E+00	3,94E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00

ABBREVIATIONS

PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials

PERM = Use of renewable primary energy resources used as raw materials

PERT = Total use of renewable primary energy resources

PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials

PENRM = Use of non-renewable primary energy resources used as raw materials

PENRT = Total use of non-renewable primary energy re-sources

ENVIRONMENTAL IMPACTS TRADIZIONALE LINE

TRADIZIONALE LINE 1 m² of FIOR DI PESCO product, 20 mm thickness

Potential environmental impacts: 1 m² of FIOR DI PESCO product 20 mm thickness

Core environmental impact indicator	Unit	A1-3	A4	A5	C1	C2	C3	C4	D
Climate change	kgCO ₂ eq	2,57E+01	2,00E+00	2,80E+00	0,00E+00	1,32E+00	1,30E-02	4,85E-02	2,29E+00
Climate change - Fossil	kgCO ₂ eq	2,59E+01	2,00E+00	2,66E+00	0,00E+00	1,32E+00	1,26E-02	4,83E-02	1,55E+00
Climate change - Biogenic	kgCO ₂ eq	-2,07E-01	1,46E-03	1,40E-01	0,00E+00	6,06E-04	3,76E-04	1,56E-04	7,45E-01
Climate change - Land use and LU change	kgCO ₂ eq	1,59E-02	5,88E-04	9,42E-04	0,00E+00	7,38E-04	2,83E-05	9,47E-06	-7,57E-04
Climate change – GWP-GHG	kgCO ₂ eq	2,43E+01	1,98E+00	2,58E+00	0,00E+00	1,31E+00	1,25E-02	4,76E-02	1,55E+00
Ozone depletion	kgCFC11eq	3,51E-06	4,73E-07	2,18E-07	0,00E+00	2,84E-07	1,06E-09	2,35E-08	3,21E-07
Acidification	mol H+eq	1,07E-01	1,02E-02	1,01E-02	0,00E+00	6,37E-03	6,97E-05	4,71E-04	5,37E-03
Eutrophication, freshwater	kg P eq	5,28E-03	1,42E-04	4,65E-04	0,00E+00	1,39E-04	1,21E-05	3,39E-06	1,37E-04
Eutrophication, freshwater	kg PO ₄ eq	1,62E-02	4,37E-04	1,43E-03	0,00E+00	4,28E-04	3,71E-05	1,04E-05	4,20E-04
Eutrophication, marine	kg N eq	2,55E-02	3,49E-03	2,77E-03	0,00E+00	2,02E-03	1,19E-05	1,77E-04	2,66E-03
Eutrophication, terrestrial	mol N eq	2,37E-01	3,82E-02	2,72E-02	0,00E+00	2,21E-02	1,13E-04	1,95E-03	2,04E-02
Photochemical ozone formation	kg NMVOCeq	1,21E-01	1,14E-02	1,03E-02	0,00E+00	6,39E-03	3,01E-05	5,57E-04	6,60E-03
Resource use, minerals and metals ²	kg Sb eq	2,99E-04	3,43E-05	2,46E-05	0,00E+00	6,52E-05	4,30E-08	4,27E-07	9,72E-05
Resource use, fossils ²	MJ	4,07E+02	3,13E+01	2,61E+01	0,00E+00	1,96E+01	2,56E-01	1,56E+00	1,60E+01
Water scarcity ²	m ³ depriv.	1,38E+01	1,02E-01	6,91E-01	0,00E+00	7,01E-02	2,75E-03	4,72E-03	-3,70E-01

2 - The results of this environmental impact indicator should be used with caution because there are high levels of uncertainty about these results or experience with the indicator is limited

Potential resource consumption: 1 m² of FIOR DI PESCO product 20 mm thickness

Core environmental impact indicator	Unit	A1-3	A4	A5	C1	C2	C3	C4	D
PERE	MJ	3,87E+01	3,94E-01	3,23E+00	1,20E+01	4,21E-01	4,27E-02	2,40E-02	-6,47E+00
PERM	MJ	7,96E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PERT	MJ	4,67E+01	3,94E-01	3,23E+00	1,20E+01	4,21E-01	4,27E-02	2,40E-02	-6,47E+00
PENRE	MJ	3,13E+02	3,32E+01	2,77E+01	3,00E+00	2,08E+01	2,69E-01	1,65E+00	1,67E+01
PENRM	MJ	1,26E+02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PENRT	MJ	4,38E+02	3,32E+01	2,77E+01	3,00E+00	2,08E+01	2,69E-01	1,65E+00	1,67E+01
Use of secondary material	kg	1,16E+01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Use of renewable secondary fuels	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Use of non-renewable secondary fuels	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Use of net fresh water	m ³	3,56E-01	3,57E-03	2,38E-02	0,00E+00	2,78E-03	2,09E-04	1,86E-03	-7,51E-03

TRADIZIONALE LINE 1 m² of FIOR DI PESCO product, 20 mm thickness

Waste production: 1 m² of FIOR DI PESCO product 20 mm thickness

Core environmental impact indicator	Unit	A1-3	A4	A5	C1	C2	C3	C4	D
Hazardous waste disposed	kg	4,94E-04	7,58E-05	3,57E-05	0,00E+00	5,44E-05	1,25E-07	1,74E-06	8,04E-05
Non-hazardous waste disposed	kg	4,71E+00	2,72E+00	1,27E+00	0,00E+00	5,96E-01	9,04E-04	1,13E+01	9,45E-01
Radioactive waste disposed	kg	7,48E-04	2,14E-04	9,82E-05	0,00E+00	1,30E-04	1,80E-06	1,06E-05	1,78E-04

Output flows : 1 m² of FIOR DI PESCO product 20 mm thickness

Core environmental impact indicator	Unit	A1-3	A4	A5	C1	C2	C3	C4	D
Components for re-use	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Materials for recycling	kg	3,08E+00	0,00E+00	2,81E+00	0,00E+00	0,00E+00	4,02E+01	0,00E+00	0,00E+00
Materials for energy recovery	kg	1,21E+00	0,00E+00	8,19E-02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Exported energy, electrical	MJ	3,94E-01	0,00E+00	1,93E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Exported energy, thermal	MJ	8,42E-01	0,00E+00	3,94E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00

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PENRM = Use of non-renewable primary energy resources used as raw materials

PENRT = Total use of non-renewable primary energy re-sources

ENVIRONMENTAL IMPACTS TRADIZIONALE LINE

TRADIZIONALE LINE 1 m² of FIOR DI PESCO product, 30 mm thickness

Potential environmental impacts: 1 m² of FIOR DI PESCO product 30 mm thickness

Core environmental impact indicator	Unit	A1-3	A4	A5	C1	C2	C3	C4	D
Climate change	kgCO ₂ eq	3,44E+01	2,99E+00	3,32E+00	0,00E+00	1,97E+00	1,95E-02	7,27E-02	3,16E+00
Climate change - Fossil	kgCO ₂ eq	3,46E+01	2,99E+00	3,17E+00	0,00E+00	1,97E+00	1,89E-02	7,25E-02	2,42E+00
Climate change - Biogenic	kgCO ₂ eq	-1,85E-01	2,19E-03	1,41E-01	0,00E+00	9,07E-04	5,63E-04	2,34E-04	7,46E-01
Climate change - Land use and LU change	kgCO ₂ eq	1,98E-02	8,79E-04	1,17E-03	0,00E+00	1,10E-03	4,24E-05	1,42E-05	-2,51E-04
Climate change – GWP-GHG	kgCO ₂ eq	3,26E+01	2,96E+00	3,08E+00	0,00E+00	1,95E+00	1,87E-02	7,15E-02	2,42E+00
Ozone depletion	kgCFC11eq	4,59E-06	7,08E-07	2,92E-07	0,00E+00	4,24E-07	1,59E-09	3,53E-08	5,09E-07
Acidification	mol H+eq	1,45E-01	1,53E-02	1,24E-02	0,00E+00	9,53E-03	1,05E-04	7,07E-04	8,90E-03
Eutrophication, freshwater	kg P eq	7,05E-03	2,13E-04	5,61E-04	0,00E+00	2,09E-04	1,81E-05	5,09E-06	2,34E-04
Eutrophication, freshwater	kg PO ₄ eq	2,16E-02	6,55E-04	1,72E-03	0,00E+00	6,41E-04	5,56E-05	1,56E-05	7,18E-04
Eutrophication, marine	kg N eq	3,29E-02	5,22E-03	3,28E-03	0,00E+00	3,03E-03	1,79E-05	2,66E-04	3,75E-03
Eutrophication, terrestrial	mol N eq	3,17E-01	5,71E-02	3,28E-02	0,00E+00	3,31E-02	1,70E-04	2,92E-03	3,13E-02
Photochemical ozone formation	kg NMVOCeq	1,51E-01	1,71E-02	1,23E-02	0,00E+00	9,57E-03	4,51E-05	8,36E-04	1,01E-02
Resource use, minerals and metals ²	kg Sb eq	4,21E-04	5,14E-05	3,32E-05	0,00E+00	9,76E-05	6,45E-08	6,41E-07	1,42E-04
Resource use, fossils ²	MJ	5,50E+02	4,68E+01	3,45E+01	0,00E+00	2,94E+01	3,84E-01	2,34E+00	2,91E+01
Water scarcity ²	m ³ depriv.	1,86E+01	1,52E-01	9,37E-01	0,00E+00	1,05E-01	4,12E-03	7,09E-03	-3,26E-01

2 - The results of this environmental impact indicator should be used with caution because there are high levels of uncertainty about these results or experience with the indicator is limited

Potential resource consumption: 1 m² of FIOR DI PESCO product 30 mm thickness

Core environmental impact indicator	Unit	A1-3	A4	A5	C1	C2	C3	C4	D
PERE	MJ	4,49E+01	5,90E-01	3,56E+00	1,20E+01	6,30E-01	6,41E-02	3,60E-02	-6,22E+00
PERM	MJ	7,96E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PERT	MJ	5,28E+01	5,90E-01	3,56E+00	1,20E+01	6,30E-01	6,41E-02	3,60E-02	-6,22E+00
PENRE	MJ	4,17E+02	4,97E+01	3,67E+01	3,00E+00	3,12E+01	4,03E-01	2,48E+00	3,06E+01
PENRM	MJ	1,75E+02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PENRT	MJ	5,91E+02	4,97E+01	3,67E+01	3,00E+00	3,12E+01	4,03E-01	2,48E+00	3,06E+01
Use of secondary material	kg	1,75E+01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Use of renewable secondary fuels	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Use of non-renewable secondary fuels	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Use of net fresh water	m ³	4,82E-01	5,33E-03	3,03E-02	0,00E+00	4,16E-03	3,14E-04	2,78E-03	-6,91E-03

TRADIZIONALE LINE 1 m² of FIOR DI PESCO product, 30 mm thickness

Waste production: 1 m² of FIOR DI PESCO product 30 mm thickness

Core environmental impact indicator	Unit	A1-3	A4	A5	C1	C2	C3	C4	D
Hazardous waste disposed	kg	6,03E-04	1,13E-04	4,44E-05	0,00E+00	8,14E-05	1,87E-07	2,61E-06	1,17E-04
Non-hazardous waste disposed	kg	6,69E+00	4,08E+00	1,73E+00	0,00E+00	8,92E-01	1,36E-03	1,69E+01	1,35E+00
Radioactive waste disposed	kg	1,03E-03	3,20E-04	1,21E-04	0,00E+00	1,95E-04	2,70E-06	1,59E-05	2,65E-04

Output flows : 1 m² of FIOR DI PESCO product 30 mm thickness

Core environmental impact indicator	Unit	A1-3	A4	A5	C1	C2	C3	C4	D
Components for re-use	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Materials for recycling	kg	3,08E+00	0,00E+00	4,10E+00	0,00E+00	0,00E+00	6,03E+01	0,00E+00	0,00E+00
Materials for energy recovery	kg	1,21E+00	0,00E+00	8,19E-02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Exported energy, electrical	MJ	3,94E-01	0,00E+00	1,93E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Exported energy, thermal	MJ	8,42E-01	0,00E+00	3,94E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00

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PENRT = Total use of non-renewable primary energy re-sources

ENVIRONMENTAL IMPACTS

URBAN GRAIN LINE

URGAB GRAIN LINE 1 m² of HARLEM product, 12 mm thickness

Potential environmental impacts: 1 m² of HARLEM product 12 mm thickness

Core environmental impact indicator	Unit	A1-3	A4	A5	C1	C2	C3	C4	D
Climate change	kgCO ₂ eq	2,14E+01	1,18E+00	2,50E+00	0,00E+00	7,77E-01	7,64E-03	2,85E-02	1,57E+00
Climate change - Fossil	kgCO ₂ eq	2,16E+01	1,18E+00	2,36E+00	0,00E+00	7,76E-01	7,40E-03	2,84E-02	8,25E-01
Climate change - Biogenic	kgCO ₂ eq	-2,14E-01	8,66E-04	1,39E-01	0,00E+00	3,57E-04	2,21E-04	9,18E-05	7,45E-01
Climate change - Land use and LU change	kgCO ₂ eq	1,43E-02	3,48E-04	8,28E-04	0,00E+00	4,35E-04	1,66E-05	5,58E-06	-1,17E-03
Climate change – GWP-GHG	kgCO ₂ eq	2,02E+01	1,17E+00	2,29E+00	0,00E+00	7,70E-01	7,35E-03	2,80E-02	8,34E-01
Ozone depletion	kgCFC11eq	2,80E-06	2,80E-07	1,66E-07	0,00E+00	1,67E-07	6,23E-10	1,38E-08	1,65E-07
Acidification	mol H+eq	9,38E-02	6,04E-03	9,00E-03	0,00E+00	3,75E-03	4,10E-05	2,77E-04	2,41E-03
Eutrophication, freshwater	kg P eq	4,70E-03	8,43E-05	4,27E-04	0,00E+00	8,22E-05	7,10E-06	2,00E-06	5,67E-05
Eutrophication, freshwater	kg PO ₄ eq	1,44E-02	2,59E-04	1,31E-03	0,00E+00	2,52E-04	2,18E-05	6,13E-06	1,74E-04
Eutrophication, marine	kg N eq	2,06E-02	2,06E-03	2,39E-03	0,00E+00	1,19E-03	7,02E-06	1,04E-04	1,75E-03
Eutrophication, terrestrial	mol N eq	1,82E-01	2,26E-02	2,31E-02	0,00E+00	1,30E-02	6,67E-05	1,15E-03	1,11E-02
Photochemical ozone formation	kg NMVOCeq	1,03E-01	6,75E-03	8,97E-03	0,00E+00	3,77E-03	1,77E-05	3,28E-04	3,66E-03
Resource use, minerals and metals ²	kg Sb eq	2,35E-04	2,03E-05	1,92E-05	0,00E+00	3,84E-05	2,53E-08	2,51E-07	6,05E-05
Resource use, fossils ²	MJ	3,36E+02	1,85E+01	2,12E+01	0,00E+00	1,16E+01	1,51E-01	9,17E-01	5,18E+00
Water scarcity ²	m ³ depriv.	1,25E+01	6,02E-02	6,12E-01	0,00E+00	4,13E-02	1,62E-03	2,78E-03	-4,07E-01

2 - The results of this environmental impact indicator should be used with caution because there are high levels of uncertainty about these results or experience with the indicator is limited

Potential resource consumption: 1 m² of HARLEM product 12 mm thickness

Core environmental impact indicator	Unit	A1-3	A4	A5	C1	C2	C3	C4	D
PERE	MJ	3,69E+01	2,33E-01	3,11E+00	1,20E+01	2,48E-01	2,51E-02	1,41E-02	-6,68E+00
PERM	MJ	7,96E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PERT	MJ	4,49E+01	2,33E-01	3,11E+00	1,20E+01	2,48E-01	2,51E-02	1,41E-02	-6,68E+00
PENRE	MJ	2,68E+02	1,97E+01	2,25E+01	3,00E+00	1,23E+01	1,58E-01	9,74E-01	5,19E+00
PENRM	MJ	9,46E+01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PENRT	MJ	3,62E+02	1,97E+01	2,25E+01	3,00E+00	1,23E+01	1,58E-01	9,74E-01	5,19E+00
Use of secondary material	kg	5,72E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Use of renewable secondary fuels	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Use of non-renewable secondary fuels	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Use of net fresh water	m ³	3,21E-01	2,11E-03	2,16E-02	0,00E+00	1,64E-03	1,23E-04	1,09E-03	-8,09E-03

URBAN GRAIN LINE 1 m² of HARLEM product, 12 mm thickness

Waste production: 1 m² of HARLEM product 12 mm thickness

Core environmental impact indicator	Unit	A1-3	A4	A5	C1	C2	C3	C4	D
Hazardous waste disposed	kg	4,04E-04	4,49E-05	2,84E-05	0,00E+00	3,21E-05	7,33E-08	1,02E-06	5,06E-05
Non-hazardous waste disposed	kg	2,35E+00	1,61E+00	8,45E-01	0,00E+00	3,51E-01	5,32E-04	6,64E+00	6,08E-01
Radioactive waste disposed	kg	5,09E-04	1,26E-04	7,86E-05	0,00E+00	7,67E-05	1,06E-06	6,25E-06	1,06E-04

Output flows : 1 m² of HARLEM product 12 mm thickness

Core environmental impact indicator	Unit	A1-3	A4	A5	C1	C2	C3	C4	D
Components for re-use	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Materials for recycling	kg	3,08E+00	0,00E+00	1,75E+00	0,00E+00	0,00E+00	2,37E+01	0,00E+00	0,00E+00
Materials for energy recovery	kg	1,21E+00	0,00E+00	8,19E-02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Exported energy, electrical	MJ	3,94E-01	0,00E+00	1,93E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Exported energy, thermal	MJ	8,42E-01	0,00E+00	3,94E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00

ABBREVIATIONS

PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials

PERM = Use of renewable primary energy resources used as raw materials

PERT = Total use of renewable primary energy resources

PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials

PENRM = Use of non-renewable primary energy resources used as raw materials

PENRT = Total use of non-renewable primary energy re-sources

ENVIRONMENTAL IMPACTS URBAN GRAIN LINE

URGAB GRAIN LINE 1 m² of HARLEM product, 20 mm thickness

Potential environmental impacts: 1 m² of HARLEM product 20 mm thickness

Core environmental impact indicator	Unit	A1-3	A4	A5	C1	C2	C3	C4	D
Climate change	kgCO ₂ eq	3,00E+01	1,96E+00	2,99E+00	0,00E+00	1,29E+00	1,27E-02	4,75E-02	2,25E+00
Climate change - Fossil	kgCO ₂ eq	3,02E+01	1,96E+00	2,85E+00	0,00E+00	1,29E+00	1,23E-02	4,74E-02	1,51E+00
Climate change - Biogenic	kgCO ₂ eq	-1,88E-01	1,43E-03	1,41E-01	0,00E+00	5,94E-04	3,68E-04	1,53E-04	7,45E-01
Climate change - Land use and LU change	kgCO ₂ eq	1,84E-02	5,76E-04	1,06E-03	0,00E+00	7,24E-04	2,77E-05	9,29E-06	-7,77E-04
Climate change – GWP-GHG	kgCO ₂ eq	2,83E+01	1,94E+00	2,76E+00	0,00E+00	1,28E+00	1,22E-02	4,67E-02	1,51E+00
Ozone depletion	kgCFC11eq	3,76E-06	4,64E-07	2,29E-07	0,00E+00	2,78E-07	1,04E-09	2,31E-08	3,13E-07
Acidification	mol H+eq	1,35E-01	1,00E-02	1,14E-02	0,00E+00	6,25E-03	6,84E-05	4,62E-04	5,15E-03
Eutrophication, freshwater	kg P eq	6,62E-03	1,40E-04	5,28E-04	0,00E+00	1,37E-04	1,18E-05	3,33E-06	1,33E-04
Eutrophication, freshwater	kg PO ₄ eq	2,03E-02	4,29E-04	1,62E-03	0,00E+00	4,20E-04	3,64E-05	1,02E-05	4,08E-04
Eutrophication, marine	kg N eq	2,72E-02	3,42E-03	2,83E-03	0,00E+00	1,98E-03	1,17E-05	1,74E-04	2,59E-03
Eutrophication, terrestrial	mol N eq	2,52E-01	3,75E-02	2,78E-02	0,00E+00	2,17E-02	1,11E-04	1,91E-03	1,95E-02
Photochemical ozone formation	kg NMVOCeq	1,31E-01	1,12E-02	1,07E-02	0,00E+00	6,27E-03	2,95E-05	5,46E-04	6,38E-03
Resource use, minerals and metals ²	kg Sb eq	3,53E-04	3,37E-05	2,70E-05	0,00E+00	6,40E-05	4,22E-08	4,19E-07	9,54E-05
Resource use, fossils ²	MJ	4,77E+02	3,07E+01	2,92E+01	0,00E+00	1,92E+01	2,51E-01	1,53E+00	1,55E+01
Water scarcity ²	m ³ depriv.	1,79E+01	9,98E-02	8,87E-01	0,00E+00	6,88E-02	2,69E-03	4,63E-03	-3,72E-01

2 - The results of this environmental impact indicator should be used with caution because there are high levels of uncertainty about these results or experience with the indicator is limited

Potential resource consumption: 1 m² of HARLEM product 20 mm thickness

Core environmental impact indicator	Unit	A1-3	A4	A5	C1	C2	C3	C4	D
PERE	MJ	4,37E+01	3,87E-01	3,47E+00	1,20E+01	4,13E-01	4,19E-02	2,35E-02	-6,48E+00
PERM	MJ	7,96E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PERT	MJ	5,17E+01	3,87E-01	3,47E+00	1,20E+01	4,13E-01	4,19E-02	2,35E-02	-6,48E+00
PENRE	MJ	3,55E+02	3,26E+01	3,11E+01	3,00E+00	2,04E+01	2,64E-01	1,62E+00	1,61E+01
PENRM	MJ	1,57E+02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PENRT	MJ	5,13E+02	3,26E+01	3,11E+01	3,00E+00	2,04E+01	2,64E-01	1,62E+00	1,61E+01
Use of secondary material	kg	9,53E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Use of renewable secondary fuels	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Use of non-renewable secondary fuels	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Use of net fresh water	m ³	4,61E-01	3,50E-03	2,87E-02	0,00E+00	2,73E-03	2,05E-04	1,82E-03	-7,66E-03

URBAN GRAIN LINE 1 m² of HARLEM product, 20 mm thickness

Waste production: 1 m² of HARLEM product 20 mm thickness

Core environmental impact indicator	Unit	A1-3	A4	A5	C1	C2	C3	C4	D
Hazardous waste disposed	kg	4,89E-04	7,44E-05	3,52E-05	0,00E+00	5,34E-05	1,22E-07	1,70E-06	7,89E-05
Non-hazardous waste disposed	kg	3,47E+00	2,67E+00	1,19E+00	0,00E+00	5,84E-01	8,87E-04	1,11E+01	9,29E-01
Radioactive waste disposed	kg	7,25E-04	2,10E-04	9,63E-05	0,00E+00	1,28E-04	1,76E-06	1,04E-05	1,74E-04

Output flows : 1 m² of HARLEM product 20 mm thickness

Core environmental impact indicator	Unit	A1-3	A4	A5	C1	C2	C3	C4	D
Components for re-use	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Materials for recycling	kg	3,08E+00	0,00E+00	2,76E+00	0,00E+00	0,00E+00	3,94E+01	0,00E+00	0,00E+00
Materials for energy recovery	kg	1,21E+00	0,00E+00	8,19E-02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Exported energy, electrical	MJ	3,94E-01	0,00E+00	1,93E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Exported energy, thermal	MJ	8,42E-01	0,00E+00	3,94E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00

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PENRM = Use of non-renewable primary energy resources used as raw materials

PENRT = Total use of non-renewable primary energy re-sources

ENVIRONMENTAL IMPACTS

URBAN GRAIN LINE

URGAB GRAIN LINE 1 m² of HARLEM product, 30 mm thickness

Potential environmental impacts: 1 m² of HARLEM product 30 mm thickness

Core environmental impact indicator	Unit	A1-3	A4	A5	C1	C2	C3	C4	D
Climate change	kgCO ₂ eq	4,08E+01	2,93E+00	3,61E+00	0,00E+00	1,94E+00	1,91E-02	7,13E-02	3,11E+00
Climate change - Fossil	kgCO ₂ eq	4,09E+01	2,93E+00	3,47E+00	0,00E+00	1,94E+00	1,85E-02	7,10E-02	2,36E+00
Climate change - Biogenic	kgCO ₂ eq	-1,57E-01	2,15E-03	1,42E-01	0,00E+00	8,90E-04	5,52E-04	2,29E-04	7,46E-01
Climate change - Land use and LU change	kgCO ₂ eq	2,34E-02	8,62E-04	1,34E-03	0,00E+00	1,08E-03	4,16E-05	1,39E-05	-2,80E-04
Climate change – GWP-GHG	kgCO ₂ eq	3,85E+01	2,91E+00	3,36E+00	0,00E+00	1,92E+00	1,84E-02	7,01E-02	2,36E+00
Ozone depletion	kgCFC11eq	4,97E-06	6,94E-07	3,08E-07	0,00E+00	4,17E-07	1,56E-09	3,46E-08	4,98E-07
Acidification	mol H+eq	1,87E-01	1,50E-02	1,44E-02	0,00E+00	9,36E-03	1,03E-04	6,93E-04	8,57E-03
Eutrophication, freshwater	kg P eq	9,04E-03	2,09E-04	6,56E-04	0,00E+00	2,05E-04	1,78E-05	4,99E-06	2,28E-04
Eutrophication, freshwater	kg PO ₄ eq	2,77E-02	6,42E-04	2,01E-03	0,00E+00	6,29E-04	5,45E-05	1,53E-05	7,01E-04
Eutrophication, marine	kg N eq	3,54E-02	5,12E-03	3,38E-03	0,00E+00	2,97E-03	1,76E-05	2,61E-04	3,65E-03
Eutrophication, terrestrial	mol N eq	3,40E-01	5,60E-02	3,37E-02	0,00E+00	3,25E-02	1,67E-04	2,86E-03	3,01E-02
Photochemical ozone formation	kg NMVOCeq	1,66E-01	1,67E-02	1,29E-02	0,00E+00	9,39E-03	4,42E-05	8,20E-04	9,77E-03
Resource use, minerals and metals ²	kg Sb eq	5,01E-04	5,04E-05	3,68E-05	0,00E+00	9,58E-05	6,33E-08	6,28E-07	1,39E-04
Resource use, fossils ²	MJ	6,53E+02	4,59E+01	3,93E+01	0,00E+00	2,88E+01	3,77E-01	2,29E+00	2,83E+01
Water scarcity ²	m ³ depriv.	2,48E+01	1,49E-01	1,23E+00	0,00E+00	1,03E-01	4,04E-03	6,95E-03	-3,29E-01

2 - The results of this environmental impact indicator should be used with caution because there are high levels of uncertainty about these results or experience with the indicator is limited

Potential resource consumption: 1 m² of HARLEM product 30 mm thickness

Core environmental impact indicator	Unit	A1-3	A4	A5	C1	C2	C3	C4	D
PERE	MJ	5,22E+01	5,78E-01	3,92E+00	1,20E+01	6,18E-01	6,28E-02	3,53E-02	-6,24E+00
PERM	MJ	7,96E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PERT	MJ	6,02E+01	5,78E-01	3,92E+00	1,20E+01	6,18E-01	6,28E-02	3,53E-02	-6,24E+00
PENRE	MJ	4,80E+02	4,87E+01	4,19E+01	3,00E+00	3,06E+01	3,95E-01	2,43E+00	2,97E+01
PENRM	MJ	2,22E+02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PENRT	MJ	7,02E+02	4,87E+01	4,19E+01	3,00E+00	3,06E+01	3,95E-01	2,43E+00	2,97E+01
Use of secondary material	kg	1,43E+01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Use of renewable secondary fuels	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Use of non-renewable secondary fuels	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Use of net fresh water	m ³	6,37E-01	5,23E-03	3,77E-02	0,00E+00	4,09E-03	3,08E-04	2,73E-03	-7,13E-03

URBAN GRAIN LINE 1 m² of HARLEM product, 30 mm thickness

Waste production: 1 m² of HARLEM product 30 mm thickness

Core environmental impact indicator	Unit	A1-3	A4	A5	C1	C2	C3	C4	D
Hazardous waste disposed	kg	5,96E-04	1,11E-04	4,37E-05	0,00E+00	8,00E-05	1,83E-07	2,55E-06	1,14E-04
Non-hazardous waste disposed	kg	4,87E+00	4,00E+00	1,61E+00	0,00E+00	8,75E-01	1,33E-03	1,66E+01	1,33E+00
Radioactive waste disposed	kg	9,97E-04	3,13E-04	1,19E-04	0,00E+00	1,91E-04	2,64E-06	1,56E-05	2,59E-04

Output flows : 1 m² of HARLEM product 30 mm thickness

Core environmental impact indicator	Unit	A1-3	A4	A5	C1	C2	C3	C4	D
Components for re-use	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Materials for recycling	kg	3,08E+00	0,00E+00	4,02E+00	0,00E+00	0,00E+00	5,92E+01	0,00E+00	0,00E+00
Materials for energy recovery	kg	1,21E+00	0,00E+00	8,19E-02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Exported energy, electrical	MJ	3,94E-01	0,00E+00	1,93E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Exported energy, thermal	MJ	8,42E-01	0,00E+00	3,94E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00

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PENRM = Use of non-renewable primary energy resources used as raw materials

PENRT = Total use of non-renewable primary energy re-sources

ENVIRONMENTAL IMPACTS FLAIR LINE

FLAIR LINE 1 m² of POLARE product, 12 mm thickness

Potential environmental impacts: 1 m² of POLARE product 12 mm thickness

Core environmental impact indicator	Unit	A1-3	A4	A5	C1	C2	C3	C4	D
Climate change	kgCO ₂ eq	2,81E+01	1,16E+00	2,80E+00	0,00E+00	7,62E-01	7,49E-03	2,79E-02	1,54E+00
Climate change - Fossil	kgCO ₂ eq	2,83E+01	1,16E+00	2,66E+00	0,00E+00	7,61E-01	7,26E-03	2,78E-02	7,96E-01
Climate change - Biogenic	kgCO ₂ eq	-1,92E-01	8,48E-04	1,40E-01	0,00E+00	3,50E-04	2,17E-04	8,99E-05	7,45E-01
Climate change - Land use and LU change	kgCO ₂ eq	1,75E-02	3,41E-04	9,70E-04	0,00E+00	4,26E-04	1,63E-05	5,46E-06	-1,19E-03
Climate change – GWP-GHG	kgCO ₂ eq	2,65E+01	1,15E+00	2,58E+00	0,00E+00	7,54E-01	7,20E-03	2,74E-02	8,05E-01
Ozone depletion	kgCFC11eq	3,53E-06	2,74E-07	1,99E-07	0,00E+00	1,64E-07	6,11E-10	1,36E-08	1,59E-07
Acidification	mol H+eq	1,31E-01	5,92E-03	1,07E-02	0,00E+00	3,68E-03	4,02E-05	2,72E-04	2,09E-03
Eutrophication, freshwater	kg P eq	6,27E-03	8,27E-05	4,99E-04	0,00E+00	8,06E-05	6,97E-06	1,96E-06	5,48E-05
Eutrophication, freshwater	kg PO ₄ eq	1,93E-02	2,54E-04	1,53E-03	0,00E+00	2,47E-04	2,14E-05	6,01E-06	1,68E-04
Eutrophication, marine	kg N eq	2,56E-02	2,02E-03	2,62E-03	0,00E+00	1,17E-03	6,89E-06	1,02E-04	1,64E-03
Eutrophication, terrestrial	mol N eq	2,35E-01	2,22E-02	2,55E-02	0,00E+00	1,28E-02	6,54E-05	1,12E-03	9,64E-03
Photochemical ozone formation	kg NMVOCeq	1,24E-01	6,62E-03	9,95E-03	0,00E+00	3,69E-03	1,73E-05	3,21E-04	3,33E-03
Resource use, minerals and metals ²	kg Sb eq	3,22E-04	1,99E-05	2,31E-05	0,00E+00	3,77E-05	2,48E-08	2,46E-07	5,94E-05
Resource use, fossils ²	MJ	4,44E+02	1,82E+01	2,61E+01	0,00E+00	1,13E+01	1,48E-01	8,98E-01	4,76E+00
Water scarcity ²	m ³ depriv.	1,68E+01	5,90E-02	8,12E-01	0,00E+00	4,05E-02	1,59E-03	2,72E-03	-4,09E-01

2 - The results of this environmental impact indicator should be used with caution because there are high levels of uncertainty about these results or experience with the indicator is limited

Potential resource consumption: 1 m² of POLARE product 12 mm thickness

Core environmental impact indicator	Unit	A1-3	A4	A5	C1	C2	C3	C4	D
PERE	MJ	4,20E+01	2,29E-01	3,34E+00	0,00E+00	2,43E-01	2,46E-02	1,38E-02	-6,69E+00
PERM	MJ	7,96E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PERT	MJ	4,99E+01	2,29E-01	3,34E+00	0,00E+00	2,43E-01	2,46E-02	1,38E-02	-6,69E+00
PENRE	MJ	3,36E+02	1,93E+01	2,78E+01	0,00E+00	1,20E+01	1,55E-01	9,54E-01	4,74E+00
PENRM	MJ	1,41E+02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PENRT	MJ	4,77E+02	1,93E+01	2,78E+01	0,00E+00	1,20E+01	1,55E-01	9,54E-01	4,74E+00
Use of secondary material	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Use of renewable secondary fuels	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Use of non-renewable secondary fuels	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Use of net fresh water	m ³	4,32E-01	2,07E-03	2,67E-02	0,00E+00	1,61E-03	1,21E-04	1,07E-03	-8,47E-03

FLAIR LINE 1 m² of POLARE product, 12 mm thickness

Waste production: 1 m² of POLARE product 12 mm thickness

Core environmental impact indicator	Unit	A1-3	A4	A5	C1	C2	C3	C4	D
Hazardous waste disposed	kg	4,68E-04	4,40E-05	3,13E-05	0,00E+00	3,14E-05	7,19E-08	1,00E-06	4,94E-05
Non-hazardous waste disposed	kg	3,35E+00	1,58E+00	8,83E-01	0,00E+00	3,44E-01	5,22E-04	6,50E+00	5,98E-01
Radioactive waste disposed	kg	6,75E-04	1,24E-04	8,61E-05	0,00E+00	7,52E-05	1,04E-06	6,12E-06	1,03E-04

Output flows : 1 m² of POLARE product 12 mm thickness

Core environmental impact indicator	Unit	A1-3	A4	A5	C1	C2	C3	C4	D
Components for re-use	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Materials for recycling	kg	3,08E+00	0,00E+00	1,72E+00	0,00E+00	0,00E+00	2,32E+01	0,00E+00	0,00E+00
Materials for energy recovery	kg	1,21E+00	0,00E+00	8,19E-02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Exported energy, electrical	MJ	3,94E-01	0,00E+00	1,93E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Exported energy, thermal	MJ	8,42E-01	0,00E+00	3,94E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00

ABBREVIATIONS

PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials

PERM = Use of renewable primary energy resources used as raw materials

PERT = Total use of renewable primary energy resources

PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials

PENRM = Use of non-renewable primary energy resources used as raw materials

PENRT = Total use of non-renewable primary energy re-sources

ENVIRONMENTAL IMPACTS

FLAIR LINE

FLAIR LINE 1 m² of POLARE product, 20 mm thickness

Potential environmental impacts: 1 m² of POLARE product 20 mm thickness

Core environmental impact indicator	Unit	A1-3	A4	A5	C1	C2	C3	C4	D
Climate change	kgCO ₂ eq	4,09E+01	1,92E+00	3,51E+00	0,00E+00	1,27E+00	1,25E-02	4,66E-02	2,20E+00
Climate change - Fossil	kgCO ₂ eq	4,11E+01	1,92E+00	3,36E+00	0,00E+00	1,27E+00	1,21E-02	4,64E-02	1,46E+00
Climate change - Biogenic	kgCO ₂ eq	-1,54E-01	1,41E-03	1,42E-01	0,00E+00	5,83E-04	3,61E-04	1,50E-04	7,45E-01
Climate change - Land use and LU change	kgCO ₂ eq	2,35E-02	5,65E-04	1,30E-03	0,00E+00	7,10E-04	2,72E-05	9,10E-06	-7,97E-04
Climate change – GWP-GHG	kgCO ₂ eq	3,87E+01	1,90E+00	3,25E+00	0,00E+00	1,26E+00	1,20E-02	4,58E-02	1,46E+00
Ozone depletion	kgCFC11eq	4,96E-06	4,55E-07	2,85E-07	0,00E+00	2,73E-07	1,02E-09	2,26E-08	3,03E-07
Acidification	mol H+eq	1,96E-01	9,81E-03	1,43E-02	0,00E+00	6,12E-03	6,70E-05	4,53E-04	4,61E-03
Eutrophication, freshwater	kg P eq	9,19E-03	1,37E-04	6,50E-04	0,00E+00	1,34E-04	1,16E-05	3,26E-06	1,30E-04
Eutrophication, freshwater	kg PO ₄ eq	2,82E-02	4,21E-04	1,99E-03	0,00E+00	4,12E-04	3,56E-05	1,00E-05	3,98E-04
Eutrophication, marine	kg N eq	3,54E-02	3,35E-03	3,22E-03	0,00E+00	1,94E-03	1,15E-05	1,70E-04	2,41E-03
Eutrophication, terrestrial	mol N eq	3,38E-01	3,67E-02	3,18E-02	0,00E+00	2,13E-02	1,09E-04	1,87E-03	1,71E-02
Photochemical ozone formation	kg NMVOCeq	1,66E-01	1,10E-02	1,24E-02	0,00E+00	6,15E-03	2,89E-05	5,35E-04	5,82E-03
Resource use, minerals and metals ²	kg Sb eq	4,95E-04	3,30E-05	3,36E-05	0,00E+00	6,27E-05	4,13E-08	4,10E-07	9,35E-05
Resource use, fossils ²	MJ	6,52E+02	3,01E+01	3,75E+01	0,00E+00	1,89E+01	2,46E-01	1,50E+00	1,48E+01
Water scarcity ²	m ³ depriv.	2,50E+01	9,78E-02	1,22E+00	0,00E+00	6,74E-02	2,64E-03	4,54E-03	-3,76E-01

2 - The results of this environmental impact indicator should be used with caution because there are high levels of uncertainty about these results or experience with the indicator is limited

Potential resource consumption: 1 m² of POLARE product 20 mm thickness

Core environmental impact indicator	Unit	A1-3	A4	A5	C1	C2	C3	C4	D
PERE	MJ	5,20E+01	3,79E-01	3,86E+00	0,00E+00	4,04E-01	4,11E-02	2,31E-02	-6,51E+00
PERM	MJ	7,96E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PERT	MJ	5,99E+01	3,79E-01	3,86E+00	0,00E+00	4,04E-01	4,11E-02	2,31E-02	-6,51E+00
PENRE	MJ	4,84E+02	3,19E+01	4,00E+01	0,00E+00	2,00E+01	2,58E-01	1,59E+00	1,54E+01
PENRM	MJ	2,17E+02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PENRT	MJ	7,01E+02	3,19E+01	4,00E+01	0,00E+00	2,00E+01	2,58E-01	1,59E+00	1,54E+01
Use of secondary material	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Use of renewable secondary fuels	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Use of non-renewable secondary fuels	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Use of net fresh water	m ³	6,42E-01	3,43E-03	3,73E-02	0,00E+00	2,67E-03	2,01E-04	1,78E-03	-8,30E-03

FLAIR LINE 1 m² of POLARE product, 20 mm thickness

Waste production: 1 m² of POLARE product 20 mm thickness

Core environmental impact indicator	Unit	A1-3	A4	A5	C1	C2	C3	C4	D
Hazardous waste disposed	kg	5,94E-04	7,29E-05	4,00E-05	0,00E+00	5,23E-05	1,20E-07	1,67E-06	7,69E-05
Non-hazardous waste disposed	kg	5,09E+00	2,62E+00	1,25E+00	0,00E+00	5,73E-01	8,69E-04	1,08E+01	9,12E-01
Radioactive waste disposed	kg	9,96E-04	2,05E-04	1,09E-04	0,00E+00	1,25E-04	1,73E-06	1,02E-05	1,69E-04

Output flows : 1 m² of POLARE product 20 mm thickness

Core environmental impact indicator	Unit	A1-3	A4	A5	C1	C2	C3	C4	D
Components for re-use	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Materials for recycling	kg	3,08E+00	0,00E+00	2,71E+00	0,00E+00	0,00E+00	3,87E+01	0,00E+00	0,00E+00
Materials for energy recovery	kg	1,21E+00	0,00E+00	8,19E-02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Exported energy, electrical	MJ	3,94E-01	0,00E+00	1,93E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Exported energy, thermal	MJ	8,42E-01	0,00E+00	3,94E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00

ABBREVIATIONS

PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials

PERM = Use of renewable primary energy resources used as raw materials

PERT = Total use of renewable primary energy resources

PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials

PENRM = Use of non-renewable primary energy resources used as raw materials

PENRT = Total use of non-renewable primary energy re-sources

ENVIRONMENTAL IMPACTS FLAIR LINE

FLAIR LINE 1 m² of POLARE product, 30 mm thickness

Potential environmental impacts: 1 m² of POLARE product 30 mm thickness

Core environmental impact indicator	Unit	A1-3	A4	A5	C1	C2	C3	C4	D
Climate change	kgCO ₂ eq	5,69E+01	2,87E+00	4,38E+00	0,00E+00	1,90E+00	1,87E-02	6,99E-02	3,04E+00
Climate change - Fossil	kgCO ₂ eq	5,69E+01	2,87E+00	4,23E+00	0,00E+00	1,89E+00	1,81E-02	6,96E-02	2,29E+00
Climate change - Biogenic	kgCO ₂ eq	-1,06E-01	2,10E-03	1,45E-01	0,00E+00	8,72E-04	5,41E-04	2,25E-04	7,46E-01
Climate change - Land use and LU change	kgCO ₂ eq	3,09E-02	8,45E-04	1,70E-03	0,00E+00	1,06E-03	4,08E-05	1,37E-05	-3,10E-04
Climate change – GWP-GHG	kgCO ₂ eq	5,38E+01	2,85E+00	4,09E+00	0,00E+00	1,88E+00	1,80E-02	6,87E-02	2,29E+00
Ozone depletion	kgCFC11eq	6,73E-06	6,80E-07	3,92E-07	0,00E+00	4,08E-07	1,53E-09	3,39E-08	4,82E-07
Acidification	mol H+eq	2,77E-01	1,47E-02	1,87E-02	0,00E+00	9,16E-03	1,01E-04	6,80E-04	7,77E-03
Eutrophication, freshwater	kg P eq	1,28E-02	2,05E-04	8,37E-04	0,00E+00	2,01E-04	1,74E-05	4,89E-06	2,23E-04
Eutrophication, freshwater	kg PO ₄ eq	3,94E-02	6,29E-04	2,57E-03	0,00E+00	6,16E-04	5,34E-05	1,50E-05	6,86E-04
Eutrophication, marine	kg N eq	4,76E-02	5,02E-03	3,96E-03	0,00E+00	2,91E-03	1,72E-05	2,56E-04	3,37E-03
Eutrophication, terrestrial	mol N eq	4,66E-01	5,49E-02	3,97E-02	0,00E+00	3,18E-02	1,64E-04	2,81E-03	2,65E-02
Photochemical ozone formation	kg NMVOCeq	2,18E-01	1,64E-02	1,54E-02	0,00E+00	9,19E-03	4,34E-05	8,03E-04	8,94E-03
Resource use, minerals and metals ²	kg Sb eq	7,10E-04	4,94E-05	4,68E-05	0,00E+00	9,38E-05	6,20E-08	6,16E-07	1,36E-04
Resource use, fossils ²	MJ	9,12E+02	4,50E+01	5,17E+01	0,00E+00	2,82E+01	3,69E-01	2,25E+00	2,73E+01
Water scarcity ²	m ³ depriv.	3,52E+01	1,46E-01	1,74E+00	0,00E+00	1,01E-01	3,96E-03	6,81E-03	-3,34E-01

2 - The results of this environmental impact indicator should be used with caution because there are high levels of uncertainty about these results or experience with the indicator is limited

Potential resource consumption: 1 m² of POLARE product 30 mm thickness

Core environmental impact indicator	Unit	A1-3	A4	A5	C1	C2	C3	C4	D
PERE	MJ	6,44E+01	5,67E-01	4,50E+00	0,00E+00	6,05E-01	6,16E-02	3,46E-02	-6,28E+00
PERM	MJ	7,96E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PERT	MJ	7,24E+01	5,67E-01	4,50E+00	0,00E+00	6,05E-01	6,16E-02	3,46E-02	-6,28E+00
PENRE	MJ	6,68E+02	4,78E+01	5,52E+01	0,00E+00	3,00E+01	3,88E-01	2,39E+00	2,86E+01
PENRM	MJ	3,11E+02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PENRT	MJ	9,79E+02	4,78E+01	5,52E+01	0,00E+00	3,00E+01	3,88E-01	2,39E+00	2,86E+01
Use of secondary material	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Use of renewable secondary fuels	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Use of non-renewable secondary fuels	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Use of net fresh water	m ³	9,03E-01	5,13E-03	5,05E-02	0,00E+00	4,00E-03	3,02E-04	2,68E-03	-8,08E-03

FLAIR LINE 1 m² of POLARE product, 30 mm thickness

Waste production: 1 m² of POLARE product 30 mm thickness

Core environmental impact indicator	Unit	A1-3	A4	A5	C1	C2	C3	C4	D
Hazardous waste disposed	kg	7,50E-04	1,09E-04	5,10E-05	0,00E+00	7,83E-05	1,80E-07	2,50E-06	1,11E-04
Non-hazardous waste disposed	kg	7,26E+00	3,92E+00	1,71E+00	0,00E+00	8,57E-01	1,30E-03	1,63E+01	1,30E+00
Radioactive waste disposed	kg	1,40E-03	3,07E-04	1,37E-04	0,00E+00	1,87E-04	2,59E-06	1,53E-05	2,52E-04

Output flows : 1 m² of POLARE product 30 mm thickness

Core environmental impact indicator	Unit	A1-3	A4	A5	C1	C2	C3	C4	D
Components for re-use	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Materials for recycling	kg	3,08E+00	0,00E+00	3,95E+00	0,00E+00	0,00E+00	5,80E+01	0,00E+00	0,00E+00
Materials for energy recovery	kg	1,21E+00	0,00E+00	8,19E-02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Exported energy, electrical	MJ	3,94E-01	0,00E+00	1,93E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Exported energy, thermal	MJ	8,42E-01	0,00E+00	3,94E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00

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PENRM = Use of non-renewable primary energy resources used as raw materials

PENRT = Total use of non-renewable primary energy re-sources

ADDITIONAL INFORMATION

BIOGENIC CARBON CONTENT

Results per declared unit	Value	unit
Biogenic carbon content in product	0	kg C
Biogenic carbon content in accompanying packaging	0,11	kg C

1 kg biogenic carbon is equivalent to 44/12 kg of CO₂.

ENERGY MIX

The energy source analysed in Module A3 derives from the energy mix purchased by the supplier; the potential impacts related to the consumption of 1 kWh are 0.407 kgCO₂eq. The impact data (GWP-GHG indicator) was obtained using SimaPro 9.2.0.2.

RECYCLED CONTENT

The reference products described in the EPD are the products with the highest potential emissions in GWP-GHG impact category, modules A1-3. They represent the three production lines of marble products.

Here the recycled content from pre-consumer materials of all the products analysed for each product line:

Product	Pre-consumer recycled content (%)	Post-consumer recycled content (%)
BOTTICINO	11%	0%
FIOR DI PESCO	23%	0%
PERLATO APPIA	95%	0%
BRERA	19%	0%
BRONTE	15%	0%
DEIRA	19%	0%
HARLEM	19%	0%
AIDA WHITE	0%	0%
ANTONELLO	34%	0%
BIANCO CARRARA	52%	0%
BIANCO TITANIO	59%	0%
POLARE	0%	0%
RIGEL	26%	0%
SABBIA	19%	0%

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