



ENVIRONMENTAL PRODUCT DECLARATION

PORCELAIN STONEWARE
CERAMIC SLABS

± 12 MM

STONEPEAK CERAMICS INC.
CROSSVILLE SITE, TN - U.S.A.



EPD Programme	The International EPD® System, www.environdec.com
Programme operator	EPD International AB
Licensee	EPD North America
Type of EPD	EPD of a single product
EPD Registration Number	EPD-IES-0027314:001
Publication date	2025-11-28
Validity Date	2030-11-27

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STONEPEAK
HIGH TECH PORCELAIN

A BRAND OF  IRIS
CERAMICA
GROUP



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PROGRAMME
INFORMATION

Programme	Programme operator address	Web site	E-mail
The International EPD® System, www.environdec.com	EPD International AB Box 210 60, 100 31 Stockholm, Sweden	www.environdec.com	support@environdec.com

The EN 15804 standard is the reference for the Core Product Category Rules (PCR)	
PCR	PCR 2019:14 Construction products, version 2.0.1 - UN CPC Code 3732 C-PCR-002 Ceramic tiles (EN 17160:2019), version 2025-04-08 C-PCR: Ceramic Tiles, c-PCR-002, version 1.0.0
PCR review was conducted by	The Technical Committee of the International EPD® System. See www.environdec.com for a list of members. Review chair: Rob Rouwette (Chair), and Noa Meron (Co-Chair). The review panel may be contacted via www.environdec.com
Independent third-party verification of the declaration and data, according to ISO 14025:2006	☐ EPD process certification (Internal) ☒ EPD verification (External)
Third party verifier	Bureau Veritas Italia S.P.A. Approved by: Accredia *EPD process certification involves an accredited certification body certifying and periodically auditing the EPD process and conducting external and independent verification of EPDs that are regularly published. More information can be found in the General Programme Instructions on www.envrondec.com.
Procedure for follow-up of data during EPD validity involves third party verifier	☐ Yes ☒ No

The EPD owner has the sole ownership, liability, and responsibility for the EPD.

EPDs within the same product category but published in different EPD programmes, may not be comparable. For two EPDs to be comparable, they shall be based on the same PCR (including the same first-digit version number) or be based on fully aligned PCRs or versions of PCRs; cover products with identical functions, technical performances and use (e.g. identical declared/functional units); have identical scope in terms of included life-cycle stages (unless the excluded life-cycle stage is demonstrated to be insignificant); apply identical impact assessment methods (including the same version of characterisation factors); and be valid at the time of comparison.

For further information about comparability, see EN 15804 and ISO 14025.

COMPANY INFORMATION

OWNER OF THE EPD

Stonepeak Ceramics Inc., 720 N Franklin St Suite 500, Chicago IL 60654, US

COMPANY PROFILE

Stonepeak Ceramics, nestled in the rolling hills of Tennessee, embodies the perfect blend of Italian design heritage and American manufacturing excellence. As a subsidiary of Iris Ceramica Group—global leader in high-end ceramic surfaces—Stonepeak proudly stands as the first U.S. manufacturer to produce large-format porcelain slabs.

With over 60 years of history from Iris Ceramica Group, Stonepeak shares the Group’s core values of sustainability, innovation, and excellence in quality. This commitment drives ongoing research and development, taking porcelain surfaces to new heights according to the Group’s vision:

Re-engineering ceramics to improve the interaction between people and the environment.

Stonepeak’s state-of-the-art production facility in Crossville, Tennessee, is the only one in the United States capable of manufacturing porcelain slabs in thicknesses ranging from 6mm to 2cm and in sizes from expansive 120”x60” panels to smaller 12”x12” tiles.

This unique capability allows Stonepeak to deliver versatile, highly customizable solutions for floors, walls, custom furnishings, countertops and other architectural surfaces—meeting the aesthetic and functional needs of architects, designers, and clients alike.

Every product is crafted in accordance with the highest standards and current regulations, ensuring exceptional performance and distinctive style for residential, commercial, and industrial applications.

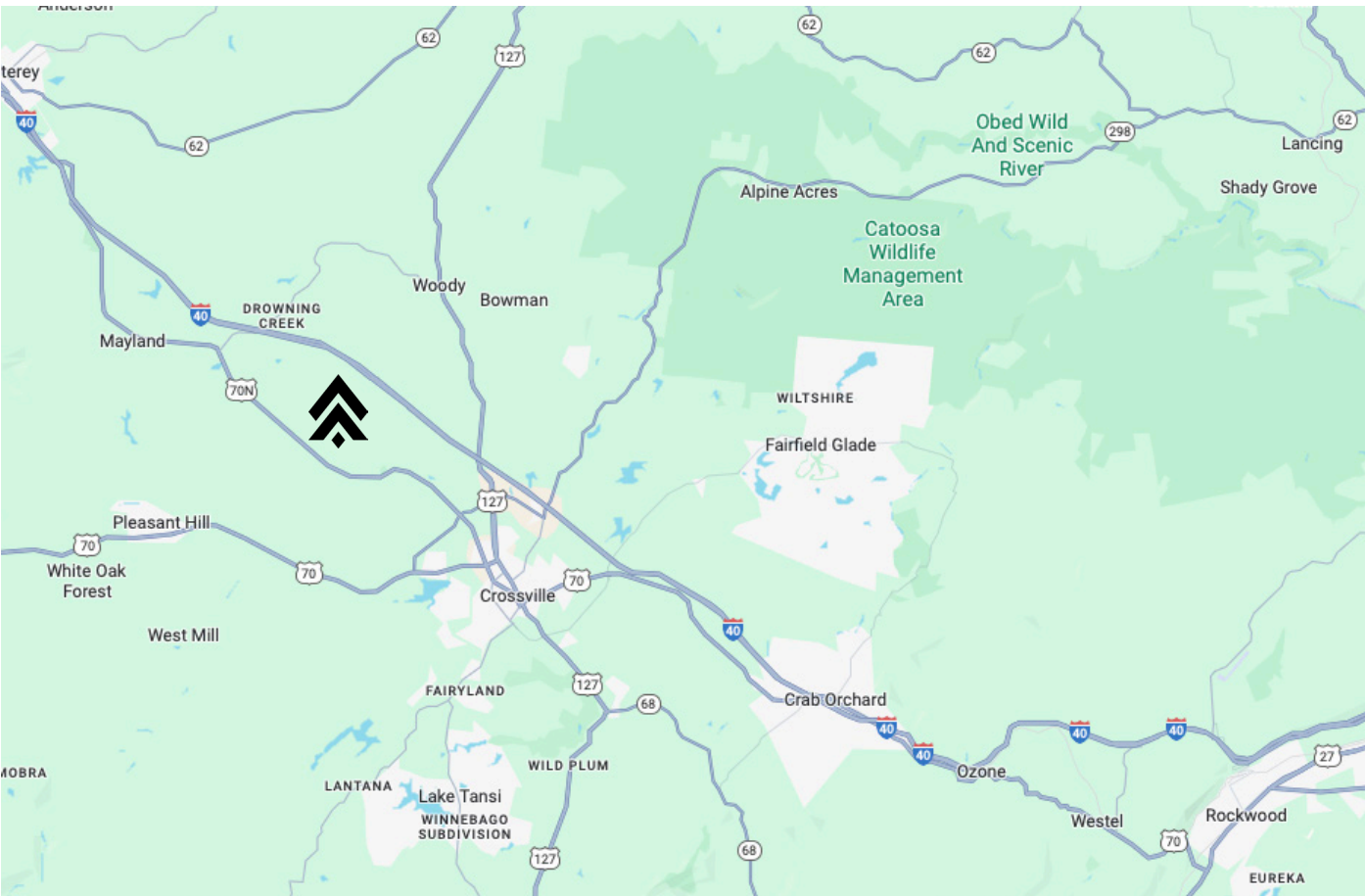
From raw material preparation to the final finishing stage, the entire production process covered by this EPD takes place at our manufacturing facility in Crossville, Tennessee, located at 238 Porcelain Tile Drive, Crossville, TN 38555, United States.

PRODUCTION SITE

From raw material preparation to the final finishing stage, the entire production process covered by this EPD takes place at our manufacturing facility in Crossville, Tennessee.

LOCATION

Crossville, TN - 238 Porcelain Drive, Crossville, TN 38555, United States



PRODUCT-RELATED OR MANAGEMENT RELATED CERTIFICATIONS

Stonepeak holds a wide range of certifications and memberships that reflect its ongoing commitment to excellence in environmental sustainability, product quality, and industry leadership. Environmental certifications demonstrate the adoption of responsible practices aimed at reducing environmental impact, while quality standards ensure compliance with technical specifications and the reliable performance of the materials supplied.

These recognitions form a key element in Stonepeak’s corporate strategy, supporting customer needs, strengthening partnerships, and promoting the protection of the environment.

Stonepeak’s production process has also obtained the following certifications, thanks to the organisation and rigorous periodic inspections of its industrial processes:

- **UNI EN ISO 14064-1**: Corporate Carbon Footprint
- **UNI EN ISO 9001**: Quality Management System
- **LEED**: Leadership in Energy and Environmental Design (ISO 14021): Recycled material content
- **DECLARE LABEL - Red List Free**: Material Transparency and Traceability Program
- **HPD**: Health Product Declaration
- **Green Squared (G2)**: Sustainability and Performance Certification for Ceramic Products
- **USGBC Member**: Member of the U.S. Green Building Council
- **UL GREENGUARD Gold**: Low Chemical Emissions Certification for Indoor Air Quality



CONTACTS

For more information on Iris Ceramica Group or about this EPD, you can contact

Sustainability Dept. - Iris Ceramica Group
Phone number: +39 0536 819611 - e-mail: sustainability@icgmail.com

Alternatively, the following sites can be consulted: www.irisceramicagroup.com & www.stonepeakceramics.com

Address and contact information of the LCA practitioner commissioned by the EPD owner, if applicable:
Benedetta Becchi – Benedetta.Becchi@alfa-solutions.it
Alessandro Rocca – Alessandro.Rocca@coll.alfa-solutions.it

PRODUCT INFORMATION

PRODUCT NAME

Porcelain stoneware ceramic slabs: thickness 12 mm

PRODUCT IDENTIFICATION

This EPD includes materials consisting of porcelain stoneware slabs—floor and wall surfaces, furniture, Countertops and tables, under the Stonepeak Ceramics brand—characterized by a thickness of 12 mm.

PRODUCT DESCRIPTION

Stonepeak manufacturers large-format porcelain slabs and traditional tile formats engineered for superior performance across a wide range of architectural applications.

The products covered by this Environmental Product Declaration (EPD) are manufactured in thicknesses of 12 mm, and are suitable for use in residential, commercial, and public spaces. They can be installed across numerous applications, including indoor and outdoor flooring, wall coverings, countertops, tabletops, custom furnishings, and other architectural surfaces.

Stonepeak porcelain solutions are recognized for their exceptional durability, offering resistance to wear, scratches, chemicals, stains, thermal shock, and UV exposure. Their non-porous surface makes them easy to clean and maintain, supporting hygienic environments by minimizing dirt and bacteria buildup. Additionally, the products contribute to improved indoor air quality and are UL GREENGUARD Gold certified for low chemical emissions.

Designed for versatility, Stonepeak products are available in an extensive range of colors, patterns, finishes, and surface textures. This variety allows seamless integration into diverse architectural and interior design styles—from timeless and understated to bold and contemporary.

Stonepeak products are suitable for all building types when installed in accordance with Stonepeak technical guidelines and best practices.

Manufactured through advanced processes—including careful raw material selection, pressing, high-temperature firing, and refined surface finishing—Stonepeak porcelain ensures consistent quality, long-term performance, and alignment with sustainable production standards.

UN CPC CODE

3732 Bricks, blocks, tiles and similar refractory ceramic constructional goods, other than those of siliceous earths

GEOGRAPHICAL SCOPE

Global

TECHNICAL SPECIFICATIONS

The materials meet requirements defined by the American standards ANSI A 137.3: July 2022, ANSI A326.3-2021 and ASTM Section 15 Volume 15.02, reported below.

Technical Properties	Standard or Measuring Method	Value Required	Average Values of Production
Water Absorption	ASTM C 373 - 18	≤ 0.5%	≤ 0.2%
Thickness Variation	ASTM C 499 - 20	± 0.02 inch	± 0.02 inch
Facial Dimension	ASTM C499 - 20	± 0.50%	± 0.50%
Warpage Average Diagonal	ASTM C 485 - 16	± 0.50%	± 0.50%
Warpage Average Edge	ASTM C 485 - 16	± 0.50%	± 0.50%
Wedging	ASTM C 502 -16	± 0.50%	± 0.50%
Bond Strength	ASTM C 482 - 20	≥ 50 psi	≥ 50 psi
Breaking Strength	ASTM C 648 - 20	≤ 275 lbf	≤ 275 lbf
Visible Abrasion Resistance	ASTM C 1027 - 19	No Requirement	Class 3
Frost Resistance	ASTM C 1026 - 13 (2018)	No sample must show alterations to surface	No evidence of damage
Chemical Resistance	ASTM C 650 - 20	Range A / E	Class A
Stain Resistance	ASTM C 1378 - 20	Range A / E	Class A
Fire Resistance	ASTM E84	Class A	A1 – A1 _{FL}

PRODUCTION CYCLE

Below is a brief description of the production cycle:

Receiving Raw Materials: The mineral raw materials and surface treatment components arrive at the manufacturing facility and are appropriately stored. Each raw material plays a specific role in the ceramic body: clay acts as a plasticizer, sand provides structure, and feldspar serves as a flux to promote vitrification.

Grinding: The pre-mixed raw materials are precisely dosed into continuous mills and turbo dissolvers according to the production recipe. During this crucial step for achieving a homogeneous mixture, water (from wells or recycled), fluidifying agents, and grinding media (alumina balls) are added. The resulting aqueous suspension, known as slurry, reaches a moisture content of about 30%. The process is completed with the addition of color pigments, whose proportions vary depending on the desired ceramic product.

Spray-drying: In this phase, the slurry is fed into steel cylinders (spray dryers) where it undergoes a nebulization process to form extremely fine droplets. These are instantly exposed to hot air for rapid drying. The result is the production of spray-dried powder, a granular mixture with a tightly controlled moisture content, ideal for the next forming stage.

Forming: The spray-dried powders are first homogenized and screened. Then, the material is compacted under high pressure between two surfaces. This mechanical operation produces the so-called “green slab”, a compacted raw tile that forms the base for all subsequent processing.

Drying: The formed slab undergoes forced drying with hot air circulation, reducing residual moisture to nearly negligible levels. This significantly increases the slab’s mechanical strength, preparing it for surface treatments and the application of aesthetic properties.

Surface Applications: The desired final aesthetic effect is achieved through various finishing techniques. One of the main methods used to apply the design is via advanced digital printing systems.

Firing: The dried slab is introduced into kilns where it undergoes a complex thermal cycle including preheating, firing, and cooling. The primary goal is to consolidate the material, imparting it with the required mechanical strength, chemical-physical resistance, and inertness for its intended applications. The final characteristics of the product are determined by the duration and peak temperature reached during these phases.

Lapping / Polishing: These are optional rotary mechanical abrasion processes aimed at selectively removing the slab’s surface layer. They are used to achieve a specific gloss level and high-end aesthetic finish.

Cutting: This operation is essential for converting large slabs into specific market formats. Standard cutting can be supplemented or replaced, depending on requirements, with optional waterjet cutting technology.

Selection, packaging, storage, and shipping: Selection takes place on dedicated automated lines where strict dimensional and quality checks are performed. Approved slabs are then packed in crates, pallets, and/or A-frames, and sealed with stretch film for packaging. The finished, packaged product is then ready for storage and subsequent shipment to the end user via trucks or containers.

CONTENT DECLARATION

CONTENT DECLARATION

The mass (weight) of one unit of a product, as purchased or per declared unit:
The average 12 mm slab has a weight of 28.25 kg per square meter.

Content of the product in the form of a list of materials and substances, and their mass:

Product components		Mass, kg	Mass-% (versus the product)	Post-Consumer material, weight %	Biogenic carbon content, kgC/kg
Mineral Part	Clay	7.55	27%	0%	0%
	Kaolin	4.59	16%	0%	0%
	Feldspar	9.44	33%	0%	0%
	Sand	4.04	14%	14%	0%
	Bentonite	1.35	5%	0%	0%
	Fluidifying	0.15	1%	0%	0%
Surface Application	Additive	0.42	1%	0%	0%
	Grit	0.19	1%	0%	0%
	Colorant	0.07	0%	0%	0%
	Ink	0.01	0%	0%	0%
	Whitening Agent	0.08	0%	0%	0%
	Glaze	0.36	1%	0%	0%
Total		28.25	100%	14%	0%

The mass and the content of distribution and/or consumer packaging:

Packaging materials	Weight. %		Biogenic carbon content. kgC/kg
	Kg/mq	% on FU	
Cardboard	0.00	0.0%	0.00
Polyethylene film	0.02	0.1%	-
Wood	2.32	7.6%	1.16
Total	2.34	7.7%	1.16

1 kg biogenic carbon in the product/packaging is equivalent to the uptake of 44/12 kg of CO₂.

Information on the environmental and hazardous/toxic properties of a substances contained in the product:
Porcelain stoneware slabs are free of Substances of Very High Concern (SVHC) included in the ECHA Candidate List, at concentrations equal to or greater than 0.1% (by mass).

LCA INFORMATION

Functional Unit	Coverage of 1 m ² of flooring in buildings for residential and commercial use for a duration of over 50 years. Conversion Factor: 28.25kg/m ²
Reference Service Life (RSL)	A service life of 50 years has been considered, although the actual lifespan of the tiles is generally longer. The environmental performance results refer to the service life of the tile, including phase B2 – Maintenance, which is based on a 50-year service life.
Time Representativeness	Primary data relating to the production facilities refer to the year 2024.
Database and LCA software	Ecoinvent 3.11 and Simapro 10.2.0.1
System Boundaries	From cradle to grave and module D (A+B+C+D)
Allocations	Auxiliary materials, surface application materials, energy consumption, waste, atmospheric emissions, and fugitive emissions were allocated based on mass.
Cut-off	In accordance with EN 15084, a minimum of 95% of the total mass and energy flows per module has been included
Electric Mix (Module A3)	Crossville Site: Renewable sources: 9.1%, fossil fuels: 58.1%, nuclear: 32.8% Energy mixed based on US EPA data for Tennessee 0.49 kg CO ₂ eq/kWh
Exclusions	Processes found to be not significant with respect to overall environmental performance were excluded. In particular, the following items were excluded from the analysis, in accordance with the reference PCR: -Business travel and employee commuting -Construction and maintenance of production facilities.

Representativeness, quality and selection of data:

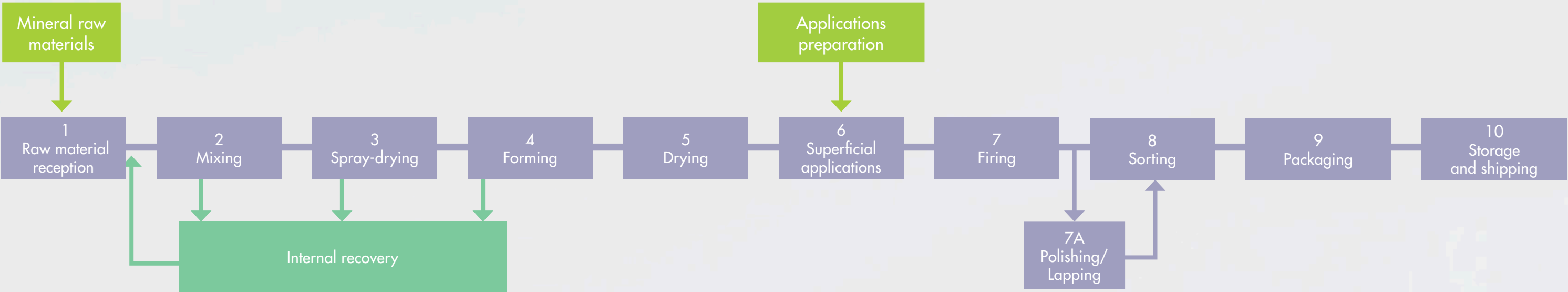
For the manufacturing stage and part of the construction stage (modules A1-A3), site-specific data were used, collected directly from the production facility in Crossville. In the absence of specific data, generic data from internationally recognized databases were utilized, particularly Ecoinvent v. 3.11, 2025.

The Crossville site is the sole production unit considered for all studied products and is, therefore, deemed fully representative in terms of technology.

The end-of-life stage (C) of the Environmental Product Declaration (EPD) faithfully reflects the geographical area taken into consideration. Conversely, the use stage (B) is based on European scenarios, considered a valid approximation for the specific context.

In terms of the quality of the background data, as assessed according to the EN 15804:2012+A2:2019 standard, Annex E, E2: the temporal, geographical, and technological representativeness was predominantly classified as good.

FLOW DIAGRAM OF THE PRODUCTION PROCESS



DECLARED MODULES, GEOGRAPHICAL REPRESENTATION, DATA VARIATION

Modules declared, geographical scope, share of primary data (in GWP-GHG results)
and data variation (in GWP-GHG results):

	Product stage			Distribution Installation stage		Use stage							End of life stage				Beyond Product Life Cycle
	Raw materials supply	Transport	Manufacturing	Transport	Construction installation	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	Deconstruction demolition	Transport	Waste processing	Disposal	Reuse - Recovery Recycling - potential
Modules	A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Declared modules	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Geography	GLO	GLO	GLO	GLO	GLO												GLO
Share of Primary Data	93%			100%													

X = Module Declared; ND = Module not declared

	A1 - A3	A4	A5
	12 mm	12 mm	12 mm
Variation - Products %	0%	0%	0%
Variation - Sites %	0%	0%	0%

DECLARED MODULES, GEOGRAPHICAL REPRESENTATION, DATA VARIATION

The share of primary data is calculated based on GWP-GHG results. It is a simplified indicator for data quality that supports the use of more primary data to increase the representativeness of and comparability between EPDs. Note that the indicator does not capture all relevant aspects of data quality and is not comparable across product categories.

Process	Source Type	Source	Reference Year	Data Category	Share of primary data, of GWP-GHG results for A1-A3
Mineral Raw Materials	Collected data	Ecoinvent v3.11	2024	Primary data, secondary data	0%
Raw Materials for Surface Applications	Collected data	Ecoinvent v3.11	2024	Primary data, secondary data	1%
Incoming Transport	Collected data	Ecoinvent v3.11	2024	Primary data, secondary data	14%
Energy Consumption	Collected data	Ecoinvent v3.11	2024	Primary data, secondary data	76%
Packaging and Auxiliary Materials	Collected data	Ecoinvent v3.11	2024	Primary data, secondary data	0%
Waste	Collected data	Ecoinvent v3.11	2024	Primary data, secondary data	0%
Atmospheric Emissions	Collected data	Ecoinvent v3.11	2024	Primary data, secondary data	2%
Total share of primary data, of GWP-GHG results for A1-A3					93%

A1-A3 “PRODUCTION PHASE”

A1 - Raw materials

For the production of 1 m² of Stonepeak ceramic tile, mineral raw materials, surface application materials, and auxiliary materials are used. The porcelain stoneware slabs are mainly composed of mineral raw materials sourced both from quarries and recycled materials (mostly pre-consumer), including ceramic and sanitaryware waste. This module includes the processes of extraction, selection, and grinding of natural and secondary raw materials, as well as the production of surface application and auxiliary materials required during the production cycle. Quantities refer to the production of 1 m² of finished product.

A2 – Transfer of Raw Materials

This module defines the inbound logistics for the Stonepeak production site, covering the transport (by sea, road, and rail) of mineral raw materials, surface application raw materials, auxiliary materials, and packaging.

A3 - Manufacturing

This module covers all production and management phases associated with the site under examination: the manufacturing of the ceramic slab, the production of packaging and auxiliary materials, and the operations related to the transport and treatment of the generated waste.

A4-A5 “PRODUCTION PHASE”

A4 – Transport to the Construction Site

Stonepeak primarily sells its products within the American territory. For the transport phase (A4), the company’s territorial specificity was prioritized, deviating from the average scenarios provided by the UNI EN 17160 standard. The following table illustrates the specific transport scenarios for the production site under study.

Parameter	Unit per 1 m ²
Fuel type and consumption	Truck: Diesel; 0.037468754 kg diesel /tkm Ship: Heavy Fuel; 0.00252 kg Heavy Fuel/tkm Airplane: Kerosene; 0.20100 Kg Kerosene/tkm
Distance	Road distance - (truck with 16-32 tons capacity): 1516 km Ship distance: 12 km Airplane distance: 9 km
Capacity utilization	Ecoinvent 3.11
Weight of Transported Materials	30.59 kg/m ²

A4-A5 “PRODUCTION PHASE”

A5 – Installation

The installation phase includes the activities related to the product’s installation, including the end-of-life management of packaging waste and its transportation to the disposal site.

For the transport of waste from the construction site to the disposal site, a distance of 50 km was considered, including the return trip. The scenarios shown in the following table are based on average values reported in the EN 17160:2019 standard.

Parameter	Unit per 1 m ²
Complementary materials for installation:	Cement adhesive – Large format tiles: 4.5 kg/m ²
Water Consumption	The installation process does not require water use
Consumption of other resources:	The installation process does not require use of other resources
Quantitative description of energy type and consumption during installation phase:	The installation process does not involve energy consumption
Waste produced during product installation phase:	Packaging waste: Wood: 2.32 kg/m ² Cardboard: 0.00 kg/m ² PE Film: 0.02 kg/m ²
Output material flows from waste treatment during installation phase:	Wood: 36.1% recycling, 30% energy recovery, 33.9% landfill Cardboard: 84.6% recycling, 8.3% energy recovery, 7.1% landfill PE Film: 37.2% recycling, 31.5% energy recovery, 31.3% landfill
Direct emissions to air, water, soil:	The installation process does not generate emissions to air, water, or soil

B1-B7 “USE PHASE”

B1 - Use

In compliance with the requirements of the EN 17160:2019 standard (Product Category Rules for ceramic tiles), the environmental impacts generated during the product’s use phase were considered sufficiently low and therefore excluded from the analysis.

B2 - Maintenance

Module B2 includes the environmental impacts resulting from the cleaning of ceramic slabs, with frequency and methods varying depending on the type of use (residential, commercial, healthcare).

The reference scenario is based on average data from the EN 17160:2019 standard. The declared environmental values for this phase refer to a usage period of 50 years (RSL).

Parameter	Unit per 1 m²
Maintenance process	Scenario for the maintenance of ceramic floors (EN 17160:2019)
Maintenance cycle	Detergent: [(52 weeks/year) / 2 (detergent use every 2 weeks)] * 50 years (RSL) Water consumption: 52 weeks/year * 50 years (RSL)
Complementary materials for maintenance:	Detergent: 0.134 ml every 2 weeks Water consumption: 0.1 l once a week
Waste materials produced during maintenance phase:	Not relevant
Net freshwater consumption during maintenance phase:	0.1 l/week
Energy Consumption During Maintenance	No energy input during the maintenance phase
Direct Emissions to air, water, soil:	The maintenance process does not generate emissions to air, water, or soil
Energy input during maintenance	No energy input during maintenance

B3 – Repair

In accordance with the EN 17160:2019 standard, ceramic tiles do not require repair interventions during their service life. Therefore, no environmental impact is declared for this phase.

B1-B7 “USE PHASE”

B4 – Replacement

Ceramic tiles rarely require replacement during the use phase. Therefore, in line with EN 17160:2019, the environmental impacts associated with this phase are considered negligible and have been excluded from the analysis.

B5 – Refurbishment

In compliance with the requirements of the EN 17160:2019 standard, ceramic tiles do not require any refurbishment activities during the use phase. Consequently, no environmental impacts are declared for this module.

B6 and B7 – Energy and Water Consumption

In accordance with the requirements of the EN 17160:2019 standard, the environmental impacts associated with energy and water consumption in phases B6 and B7 are not considered applicable to ceramic products and are therefore excluded from the analysis.

C1-C4 “END OF LIFE PHASE”

C1 – Dismantling and Demolition

In compliance with the requirements of the EN 17160:2019 standard (Product category rules for ceramic tiles), the environmental impacts arising from dismantling and demolition operations of the product are considered very low and have therefore been excluded from the analysis.

C2 – Transport of Demolition Waste

This module includes the transport of the demolished tile to a recycling or disposal facility. For the calculation of emissions and consumption, a distance of 40 km from the construction site to the treatment facility has been considered, including the return trip.

C3 – Treatment of Waste for Reuse, Recovery, and/or Recycling

The environmental impact assessment related to the reuse (C3) and end-of-life recovery phases of the ceramic tile was carried out referring to the sector EPD developed for products manufactured in North America. Consequently, and in line with conservative assumptions, the amount of material destined for recovery or reuse after demolition is considered negligible, assuming that the material is primarily sent to landfill (C4).

C4 – Disposal

The environmental impact assessment associated with the end-of-life disposal phase of the product is based on the sector EPD for ceramic products made in North America. The applied scenario assumes complete disposal of the ceramic tile and its cement adhesive in landfill.

MODULE D “POTENTIAL FOR REUSE, RECOVERY, AND/OR RECYCLING”

Considering that the end-of-life scenario for the ceramic tile is direct disposal in specialized inert material landfills, the potential for recovery and reuse is absent. Consequently, the environmental benefit accounted for in Module D is zero.

ENVIRONMENTAL PERFORMANCE

MANDATORY IMPACT CATEGORY INDICATORS ACCORDING TO EN 15804 - 12 mm

Indicators	Units	Results Per Functional Unit								
		A1-A3	A4	A5	B1 - B3 B4 - B5 B6 - B7 C1	B2	C2	C3	C4	D
GWP-total	kg CO ₂ eq	2.68E+01	9.61E+00	6.07E+00	0.00E+00	9.11E-01	4.64E-01	0.00E+00	2.05E-01	0.00E+00
GWP-fossil	kg CO ₂ eq	3.05E+01	9.90E+00	1.64E+00	0.00E+00	8.64E-01	4.64E-01	0.00E+00	2.05E-01	0.00E+00
GWP-biogen.	kg CO ₂ eq	3.82E+00	2.92E-03	4.42E+00	0.00E+00	7.67E-04	1.43E-04	0.00E+00	9.85E-05	0.00E+00
GWP-luluc	kg CO ₂ eq	3.09E-02	4.22E-03	5.71E-04	0.00E+00	4.57E-02	2.08E-04	0.00E+00	1.17E-05	0.00E+00
ODP	kgCFC11eq	4.50E-07	1.22E-07	6.14E-09	0.00E+00	7.40E-08	5.87E-09	0.00E+00	5.71E-09	0.00E+00
AP	mol H+ eq	1.06E-02	3.30E-02	4.95E-03	0.00E+00	5.45E-03	1.58E-03	0.00E+00	1.44E-03	0.00E+00
EP-freshw.	kg P eq	4.90E-03	1.03E-03	2.20E-04	0.00E+00	3.10E-04	5.08E-05	0.00E+00	1.79E-05	0.00E+00
EP-marine	kg N eq	2.40E-02	1.05E-03	1.70E-03	0.00E+00	1.57E-03	5.02E-04	0.00E+00	5.51E-04	0.00E+00
EP-terrestrial	mol N eq	2.59E-01	1.15E-01	1.53E-02	0.00E+00	1.17E-02	5.45E-03	0.00E+00	6.02E-03	0.00E+00
POCP	kgNMVOC	1.01E-02	4.47E-02	4.43E-03	0.00E+00	3.53E-03	2.14E-03	0.00E+00	2.17E-03	0.00E+00
ADPmin&met ²	kg Sb eq	9.93E-05	3.07E-05	3.30E-06	0.00E+00	7.41E-06	1.52E-06	0.00E+00	2.98E-07	0.00E+00
ADPfossil ²	MJ	4.94E+02	1.33E+02	8.68E+00	0.00E+00	1.30E+01	6.41E+00	0.00E+00	5.02E+00	0.00E+00
WDP ²	m ³ .depriv.	8.17E+00	7.41E-01	1.58E-01	0.00E+00	1.18E+01	3.64E-02	0.00E+00	2.23E-01	0.00E+00

GWP-fossil = Global Warming Potential fossil fuels; **GWP-biogenic** = Global Warming Potential biogenic; **GWP-luluc** = Global Warming Potential land use and land use change; **ODP** = Depletion potential of the stratospheric ozone layer; **AP** = Acidification potential, Accumulated Exceedance; **EP-freshwater** = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; **EP-marine** = Eutrophication potential, fraction of nutrients reaching marine end compartment; **EP-terrestrial** = Eutrophication potential, Accumulated Exceedance; **POCP** = Formation potential of tropospheric ozone; **ADP-minerals&metals** = Abiotic depletion potential for non-fossil resources; **ADP-fossil** = Abiotic depletion for fossil resources potential; **WDP** = Water (user) deprivation potential, deprivation-weighted water consumption

** Disclaimer: The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator.*

The estimated impact results are only relative statements, which do not indicate the endpoints of the impact categories, exceeding threshold values, safety margins and/or risks. The results of the end-of-life stage (modules C1-C4) should be considered when using the results of the product stage (modules A1-A3).

ADDITIONAL MANDATORY IMPACT CATEGORY INDICATORS - 12 mm

Indicators	Units	Results Per Functional Unit								
		A1-A3	A4	A5	B1 - B3 B4 - B5 B6 - B7 C1	B2	C2	C3	C4	D
GWP-GHG ¹	kg CO ₂ eq.	3.06E+01	9.61E+00	1.71E+00	0.00E+00	9.12E-01	4.64E-01	0.00E+00	2.05E-01	0.00E+00

WASTE INDICATORS - 12 mm

Indicators	Units	Results Per Functional Unit								
		A1-A3	A4	A5	B1 - B3 B4 - B5 B6 - B7 C1	B2	C2	C3	C4	D
HW	Kg	1.99E+00	2.98E-01	7.25E-02	0.00E+00	9.14E-02	1.47E-02	0.00E+00	5.71E-03	0.00E+00
NHW	Kg	2.68E+01	5.73E+00	3.91E+00	0.00E+00	7.84E+00	2.82E-01	0.00E+00	1.32E-02	0.00E+00
RW	kg	1.14E-03	2.58E-05	5.85E-06	0.00E+00	1.41E-05	1.27E-06	0.00E+00	7.32E-07	0.00E+00

HW = Hazardous waste disposed; NHW = Non-hazardous waste disposed; RW = Radioactive waste disposed

RESOURCE USE INDICATORS - 12 mm

Indicators	Units	Results Per Functional Unit								
		A1-A3	A4	A5	B1 - B3 B4 - B5 B6 - B7 C1	B2	C2	C3	C4	D
PERE	MJ	3.85E+01	1.81E+01	1.03E+00	0.00E+00	3.65E-00	8.90E-02	0.00E+00	4.69E-02	0.00E+00
PERM	MJ	4.00E+01	0.00E+00	0.00E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PERT	MJ	7.85E+01	1.81E+00	1.03E+01	0.00E+00	3.65E+00	8.90E-02	0.00E+00	4.69E-02	0.00E+00
PENRE	MJ	4.77E+02	8.44E+01	8.68E+01	0.00E+00	1.31E+01	6.41E+00	0.00E+00	5.02E+00	0.00E+00
PENRM	MJ	1.67E+00	0.00E+00	0.00E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PENRT	MJ	4.94E+02	8.44E+01	8.68E+00	0.00E+00	1.31E+01	6.41E+00	0.00E+00	5.02E+00	0.00E+00
SM	Kg	1.98E-01	3.65E-02	2.95E-03	0.00E+00	1.28E-02	2.82E-03	0.00E+00	1.25E-03	0.00E+00
RSF	MJ	9.28E-01	4.70E-04	4.09E-03	0.00E+00	8.22E-05	3.65E-05	0.00E+00	2.61E-05	0.00E+00
NRSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
FW	m ³	2.51E-01	1.15E-02	3.90E-03	0.00E+00	2.75E-01	8.87E-04	0.00E+00	5.21E-03	0.00E+00

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 resources; SM = Use of secondary material; RM: Use of recycled materials and by-products (according to Green Building Protocols as LEED and BREEAM); RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water

1: This indicator accounts for all greenhouse gases except biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. As such, the indicator is identical to GWP-total except that the CF for biogenic CO₂ is set to zero.

OUTPUT FLOW INDICATORS - 12 mm

Indicators	Units	Results Per Functional Unit								
		A1-A3	A4	A5	B1 - B3 B4 - B5 B6 - B7 C1	B2	C2	C3	C4	D
REUSE	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	0.00E+00
RECYCLE	Kg	1.39E-02	1.52E-03	1.51E-02	0.00E+00	1.38E-03	7.23E-05	0.00E+00	5.44E-05	0.00E+00
EN-REC	Kg	1.78E-04	8.69E-06	5.63E-06	0.00E+00	1.54E-03	4.28E-07	0.00E+00	9.66E-08	0.00E+00
EE-E	MJ	1.26E-01	1.09E-02	2.65E-03	0.00E+00	6.69E-03	5.36E-04	0.00E+00	3.26E-04	0.00E+00
EE-T	MJ	7.64E-02	1.93E-02	9.56E-03	0.00E+00	2.25E-02	9.54E-04	0.00E+00	1.73E-04	0.00E+00

REUSE = Components for reuse; RECYCLE = Materials for recycling; EN-REC = Materials for Energy Recovery; EE-E= Exported Energy Electricity; EE-T= Exported Thermal Energy

ABBREVIATIONS

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General Abbreviations	Definition
EN	European Norm (Standard)
EF	Environmental Footprint
GPI	General Programme Instructions
ISO	International Organization for Standardization
CEN	European Comittee for Standardization
CLC	Co-Location Centre
CPC	Central Product Classification
GHS	Global Harmonized System of Classification and Labeling of Chemicals
GRI	Global Reporting Initiative
SVHC	Substances of Very High Concern
ND	Not Declared

REFERENCES

REFERENCES

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- EN 17160:2019 Product Category Rules for Ceramic Tiles
- ISO 14020:2000 Environmental Labels and Declarations-General Principles
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- ISO 14040:2006 Environmental Management-Life Cycle Assessment-Principles and Framework
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VERSION HISTORY

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Original Version of the EPD, 2025-11-28

STONEPEAK
HIGH TECH PORCELAIN

A BRAND OF  **IRIS
CERAMICA
GROUP**