



# ENVIRONMENTAL PRODUCT DECLARATION **EPD**

EPD of multiple products, based on the average results of the Quartz product groups

In accordance with ISO 14025:2006 and EN 15804:2014

CPC 37310 - Bricks, blocks, tiles and other ceramic goods of siliceous earths

PCR 2019:14 "Construction Product," version 1.3.4

Geographic Area: Global

An EPD should provide up-to-date information and can be updated if conditions change. The stated validity is therefore subject to continued registration and publication at [www.environdec.com](http://www.environdec.com)



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## Products covered by this EPD:

- **FAMILY 1:** products characterized by the presence of quartz, cristobalite, resin, pigments and additives. Made in thickness: 1 cm; 1.3 cm; 2 cm; 3 cm.
- **FAMILY 3:** products characterized by the presence of fine-grained quartz, resin, pigments and additives. Made in thickness: 1 cm; 1.3 cm; 2 cm; 3 cm.
- **FAMILY 4:** products characterized by the presence of medium-grained quartz, resin, pigments and additives. Made in thickness: 1 cm; 1.3 cm; 2 cm.
- **FAMILY 5:** products characterized by the presence of coarse-grained quartz, resin, pigments and additives. Made in thickness: 1 cm; 1.3 cm; 2 cm.
- **FAMILY 6:** products characterized by the presence of quartz, silica sands, resin, pigments and additives. Made in thickness: 1 cm; 1.3 cm; 2 cm.
- **FAMILY 7:** products characterized by the presence of quartz, mirror glass, resin, pigments and additives. Made in thickness: 1 cm; 2 cm.
- **FAMILY 8:** products characterized by the presence of quartz, mother of pearl, resin, pigments and additives. Made in thickness: 1 cm; 1.3 cm; 2 cm.
- **FAMILY 9:** products characterized by the presence of quartz, recycled recomposed quartz granules, resin, pigments and additives. Made in the thickness: 1 cm; 1.3 cm; 2 cm.
- **FAMILY 10:** veined products characterized by the presence of quartz, resin, pigments and additives. Made in thickness: 2 cm; 3 cm.
- **FAMILY 11:** products characterized by the presence of quartz, recycled sweeping earth, resin, pigments and additives. Made in thickness: 1 cm.
- **FAMILY 12:** products characterized by the presence of marble, resin, pigments and additives. Made in thickness: 1 cm.

# COMPANY AND PRODUCT DESCRIPTION

## THE COMPANY

Stone Italiana was founded in Zimella, in the province of Verona, in 1979 and is currently one of the most innovative Company in the field of recomposed quartz and mineral surfaces, manufacturing slabs in a variety of formats and thicknesses to ensure that they can be applied to a wide range of uses. Over time, our products have reflected the changing attitudes towards and ways of using stone. We like to think that, at Stone Italiana, we rework a number of qualities found in nature: uniqueness, originality and variety. However, we don't just stop at nature – we go beyond it by creating products with enhanced performance levels for an ever-more-demanding market.

Stone Italiana explores possibilities in every area of production, from aesthetics to performance enhancement. We work hard to improve the mechanical strength of our slabs while keeping their thickness and weight as low as possible; we try out new colour schemes and textures, and produce tailor-made combinations of materials and grain sizes. We export our know-how, history and materials to over 80 Countries around the world. The international market pushes us to engage in ongoing research, trend-scouting and product renewal. This process is fuelled not only by our own team but also receives priceless input from our relationships with our customers, partners, architects, designers and suppliers.

The Company has two production facilities: the original site in Zimella (Verona) and the second one in Villesse (Gorizia). Our catalogue boasts different types of products, mainly used to create kitchen and vanity tops, workbenches, floorings and wall claddings, as well as customised applications.

## THE ANALYSED PRODUCT

The product analyzed is represented by a recomposed material based mainly on quartz. The production process involves the mixing of aggregates (quartz) of different grain size, organic dyes and polyester structural resin (in the percentage of about 8%-11%); the latter, in addition to the binding action allows to obtain-in the finished product-optimal values in the characteristics of resistance to bending, impact, imbibition and, more generally, makes it possible to reconstruct the mass of the recomposite with physical qualities and performance superior to the natural starting product.

This EPD statement refers to twelve possible families of recomposed products made by Stone Italiana, used for different applications: kitchen countertops, countertops, bathroom tops and custom fabrications.

Below is a description for each family and a list of the materials that in total are required to make 1 m<sup>2</sup> of recomposed quartz.

Recomposed quartz products can be made and sold in different sizes: this statement refers to an average product. Slabs are packed in stands (wooden and steel) containing 6/10/15 slabs each (figure refers to the wooden stand). The number of slabs contained in each stand depends on the thickness of the slabs.

As required by PCR 2019:14 version 1.3.4, no substances of high SVHC concern covered by ECHA's Candidate List are present in Stone Italiana's products in concentrations greater than 0.1 percent. The following table shows the technical characteristics of the products and the reference standards.

Characteristics	Applicable standards	Unit	Declared values	
Water absorption	EN 14617-1	%	$W_4 \leq 0,05$	
Flexural strength	EN 14617-2	MPa	$F_4 \geq 40,0$ $25,0 \leq F_3 < 40,0$ (quartz with inlays)	
Abrasion resistance	EN 14617-4	mm	$A_4 \leq 29,0$ $33,0 \geq A_3 > 29,0$ (micrograin quartz)	
Chemical resistance	EN 14617-10	min C <sub>1</sub> max C <sub>4</sub>	C <sub>4</sub> C <sub>1</sub> (Quartz with calcium carbonate inlays)	
Fire resistance (flooring)	EN 13501-1	-	A2 fl-s1	
Slipperiness	EN 14231	SRV	DRY	WET
- Gloss			40-47	3-8
- Grain 2.0			44-56	7-17
- Rocplan 2.0			69-94	35-46

Slipperiness	DIN 51130	R	R9 (Grain 2.0) R10 (Rocplan 2.0)	
Thermal conductivity (value as per table)	EN 12524	W/(mK)	1,28	
Thermal-shock resistance	EN 14617	-	$\Delta m = -0,08\%$	
Coefficient of linear thermal expansion	EN 14617-11	1/°C	$\alpha = 17-26 \times 10^{-6}$	
Electrical resistance	EN 14617-13	$\Omega m$ $\Omega$	$\rho$ volume $> 10^{12}$ $\rho$ surface $> 10^{12}$	
Impact resistance	EN 14617-9	Joule	2	
Dimensional stability (300 x 300 x 10 mm)	EN 14617-12	mm	Class A	
Dry heat resistance	EN 12722	°C	140°C	
Contact with foodstuffs. Overall migration	UNI EN 1186	mg/dm <sup>2</sup>	Distilled water Acetic acid solution 3% Ethanol solution 10% Isooctane Ethanol 95%	0,2 0,3 0,5 0,9 1,3

EU Regulation No. 305/2011 requires that construction works be designed and built in a way that does not compromise the safety of people and property. To this end, Stone Italiana guarantees that its paving materials comply with the European harmonized technical standard UNI-EN 15285:2008 for “Modular floor tiles and stairs.” The breaking load (breaking load) is determined by the bending test, which determines how much stress the material withstands before breaking. The European harmonized technical standard UNI-EN 15285:2008 establishes the method for performing the abrasion test (EN 14617-4). Frost resistance is not applicable, as the material is for indoor use.

### DECLARED UNIT

The LCA used as the basis for this EPD is a “cradle to grave” analysis. The calculations of material and energy flows have been calculated based on the following functional unit:

**1 m<sup>2</sup> of recomposed Quartz**

in accordance with ISO 15804, a useful life time of 40 years was estimated.

## DECLARATION OF CONTENTS

Below are the percentages of materials contained in the product and its packaging, declared in accordance with PCR 2019:14.

Product components	Weight, kg	Post-consumer recycled material, %
Polymers	0,08	0,00
Inerts	0,90	0,00
Pigments	0,01	0,00
Other	0,01	0,00
<b>TOTAL</b>	<b>1,00</b>	<b>0,00</b>
Packaging	Weight, kg	Post-consumer recycled material, %
Steel	0,80	0,00
Wood	0,20	0,00
<b>TOTAL</b>	<b>1,00</b>	<b>0,00</b>

## SYSTEM BOUNDARIES

System boundaries determine the life-cycle stages to be included in the LCA and what kind of 'inbound' or 'outbound' data can be omitted. In accordance with version 1.3.4 of PCR 2019:14 and EN 15804:2012+A2:2019/AC:2021 standard, the life cycle of quartz materials includes the extraction of raw materials and production cycle, transport and manufacturing, divided into the phases of Upstream (A1) and Core (A2 and A3) and delivery, installation and end-of-life phases in the Downstream category (A4, A5, B2, C3, C4).

The **Upstream** (A1) stage comprises material-acquisition activities, broken down as follows:

- extraction and initial processing of the raw materials and processes to recycle any secondary materials deriving from a previous product system (excepting processes which form part of waste treatment processes in the previous product system);
- generation of electricity from primary energy sources, including the extraction, refinement and distribution of the same;
- energy recovery from secondary fuels (excepting processes which form part of waste treatment processes in the previous product system).

The **Core** stage comprises the following processes:

- external and internal transport to the processes forming part of the Core stage (A2);
- the manufacturing of the products, the production of auxiliary materials and packaging and management of the waste produced during the production process (A3).

The **Downstream** stage comprises the following processes:

- transport of the object of study to the building site (A4);
- installation of the object of study in the building (A5);
- maintenance of the object of study (B2);
- demolition of the object of study (C1);
- transport to waste treatment facility (C2);
- waste treatment - reuse, recovery and recycling (C3);
- disposal (C4).

The results also include Module D, which includes environmental benefits across system boundaries.

	Product stage			Construction process stage		Use stage							End of life stage				Resource recovery stage
	Raw material supply	Transport	Manufacturing	Transport	Construction installation	Raw material supply	Transport	Manufacturing	Transport	Construction installation	Raw material supply	Transport	Manufacturing	Transport	Construction installation	Raw material supply	Transport
Modules	A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Modules declared	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Geography	IT, TR	IT, TR	IT	GLO	GLO	GLO	GLO	GLO	GLO	GLO	GLO	GLO	GLO	GLO	GLO	GLO	GLO
Share of specific data	1,08%			-	-	-	-	-	-	-	-	-	-	-	-	-	-
Variation – products	-17%/+4%*			-	-	-	-	-	-	-	-	-	-	-	-	-	-
Variation – sites	0%**			-	-	-	-	-	-	-	-	-	-	-	-	-	-

\* The differences found between these environmental impact categories depend mainly on the variation in the quantities of raw material used. All products included in this EPD are manufactured through the same production cycle.

\*\* The product under study is made exclusively at the Zimella (Italy) plant.



## **DATA QUALITY, CUT-OFF CRITERIA AND EXCLUSIONS**

The inventory analysis was conducted using specific data from Stone Italiana regarding raw material and electricity consumption, product output and related waste. All specific data provided by Stone Italiana refer to the year 2023 and are for the Zimella and Villesse sites.

Primary data were also used for the production processes of some raw materials and auxiliary materials used in the manufacture of products, as well as selected generic data from international databases (in particular Ecoinvent EN 15804) for other raw materials, electricity generation and distribution processes, means of transportation and waste treatment processes related to product production. Data on land transport distances were calculated using the online Google Maps calculator and Sea-Rates the distances of sea transport.

Based on the above, the quality of the data used can be considered very good. The “other generic” data used in the modeling are discs and rollers and an auxiliary of the purification process; a check was made on the incidence of the proxy data, which was always less than 1 percent for all products and all impact categories analyzed.

In accordance with PCR 2019:14 and the cut-off rule, flows less than 1% of the total inventory were excluded; in particular, the following were excluded from the calculation:

- packaging of raw materials and auxiliaries;
- the consumption of methane for office heating;
- water for sanitary use;
- the travel of workers to and from the workplace and the construction of machinery and plants, since they are not directly related to the product (PCR).

Electricity mix: electricity used in the production process (step A1-A3) was modeled by considering the Company's mix for the period under consideration. The GWP-GHG of the electricity mix is 0.17 kg CO<sub>2</sub> eq/kWh.

## **PRODUCT USE AND DISPOSAL**

The use, repair and replacement phases of quartz products (step B1 and B3 to B7 of PCR 2019:14 v.1.3.4) were not considered in this life cycle analysis. Impacts associated with selective demolition/deconstruction are negligible (C1). In addition, for product end-of-life, recovery (C3) is not considered, while for packaging, recovery (C3) and disposal (C4) rates are derived from statistical data. For both packaging end-of-life and product end-of-life, transportation to the treatment/recovery facility was considered (C2).

## **COMPARISON OF EPD WITHIN THE SAME PRODUCT CATEGORY**

This EPD complies with the requirements of ISO 14025 and EN 15804. EPDs within the same product category but referring to different programs cannot be compared. EPDs of construction products can only be compared if they meet the comparability requirements outlined in EN 15804:2012+A2:2019/AC:2021. The products made by Stone Italiana described in this document are based on the PCR 2019:14 version 1.3.4 specification.

## **VALIDITY OF EPD**

This EPD refers to the global geographic area and remains valid for up to five years from the date of approval.

# ENVIRONMENTAL PERFORMANCE

The environmental performance of recomposed quartz products made by Stone Italiana, as detailed below, is based on the Life Cycle Assessment (LCA) methodology and has been calculated in accordance with the two ISO 14040 and 14044 standards, the International EPD® system, and PCR 2019:14 v.1.3.4. The management and updating of environmental data regarding EPD products are ensured by special internal procedures of the ISO 14001:2015 environmental management system.

## **METHOD OF EVALUATION**

The calculation method adopted for the LCA study underlying this EPD is that described in the document “GPI for an International EPD® System” version 4.0, while the characterization factors used to convert data from the life cycle inventory analysis into impact categories are described and updated at <https://www.environdec.com/resources/indicators>.

This analysis was conducted using Simapro 9.6.0.1 software with Ecoinvent EN 15804 database. Results were calculated using the 15804 method based on EF 3.1.

## **ENVIRONMENTAL PROFILE OF RECOMPOSED QUARTZ PRODUCTS**

The following table describes the impact categories that characterize the Upstream, Core and Downstream phases of the overall life cycle related to 1 m<sup>2</sup> of recomposed quartz made by Stone Italiana, identified by forms A1-A5, B2, C1-C4.

## Results of life cycle environmental impact of 1 m<sup>2</sup>, average of products

Impact categories	Unit	A1-A3	A4 - distribution	A5 - Installation	B1 - Use	B2 - Maintenance	B3 - Repair	B4 - Replacement	B5 - Renovation	B6 - EE consumption	B7 - Water consumption	C1 - Demolition	C2 - Transport	C3 - Treatment for recovery	C4 - Disposal	D
GWP-f	kg CO <sub>2</sub> eq	4,57E+01	2,17E-01	7,33E-01	3,90E-03	7,94E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	4,19E-01	0,00E+00	1,11E-01	0,00E+00
GWP-b	kg CO <sub>2</sub> eq	2,01E+00	1,64E-04	9,71E-02	2,09E-04	4,25E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	4,85E-04	0,00E+00	3,86E-03	0,00E+00
GWP-luluc	kg CO <sub>2</sub> eq	6,11E-02	6,76E-06	5,08E-06	2,70E-04	5,50E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,02E-05	0,00E+00	6,03E-06	0,00E+00
<b>GWP total</b>	kg CO <sub>2</sub> eq	4,78E+01	2,18E-01	8,30E-01	4,38E-03	8,91E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	4,20E-01	0,00E+00	1,15E-01	0,00E+00
ODP	kg CFC-11 eq	1,01E-06	3,79E-09	7,01E-08	3,76E-10	7,66E-07	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	8,50E-09	0,00E+00	1,76E-09	0,00E+00
AP	moli H <sup>+</sup> eq	1,64E-01	3,72E-03	5,04E-03	2,11E-05	4,29E-02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	4,82E-04	0,00E+00	1,02E-03	0,00E+00
EP - f	kg P eq	1,01E-02	1,63E-06	8,45E-05	1,32E-06	2,69E-03	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	3,01E-06	0,00E+00	9,42E-07	0,00E+00
EP - m	kg N eq	3,46E-02	9,24E-04	8,09E-05	5,00E-06	1,02E-02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,06E-04	0,00E+00	4,78E-04	0,00E+00
EP - t	moli N eq	3,50E-01	1,03E-02	1,58E-04	3,90E-05	7,94E-02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,15E-03	0,00E+00	5,23E-03	0,00E+00
POCP	kg NMVOC eq	2,03E-01	2,92E-03	3,81E-04	1,24E-05	2,53E-02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,04E-03	0,00E+00	1,56E-03	0,00E+00
ADP-min&met*	kg Sb eq	2,01E-05	1,17E-08	4,22E-03	4,03E-08	8,21E-05	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,38E-08	0,00E+00	4,60E-09	0,00E+00
ADP-fossil*	MJ	7,79E+02	2,77E+00	1,41E+01	1,58E-01	3,22E+02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	5,50E+00	0,00E+00	1,46E+00	0,00E+00
WDP*	m <sup>3</sup> eq	1,66E+01	2,64E-03	9,46E-03	2,29E-02	4,67E+01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	5,78E-03	0,00E+00	2,29E-03	0,00E+00
PERE	MJ	5,22E+01	7,83E-03	3,32E-03	8,88E-03	1,81E+01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,91E-02	0,00E+00	3,49E-02	0,00E+00
PERM	MJ	3,63E+00	0,00E+00	0,00E+00	2,76E-03	5,62E+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	0,00E+00	0,00E+00
PERT	MJ	5,59E+01	7,83E-03	3,32E-03	1,16E-02	2,37E+01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,91E-02	0,00E+00	3,49E-02	0,00E+00
PENR	MJ	7,13E+02	2,77E+00	1,41E+01	1,35E-01	2,74E+02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	5,50E+00	0,00E+00	1,46E+00	0,00E+00
PENRM	MJ	6,57E+01	0,00E+00	0,00E+00	2,37E-02	4,83E+01	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	0,00E+00

Impact categories	Unit	A1-A3	A4 - distribution	A5 - Installation	B1 - Use	B2 - Maintenance	B3 - Repair	B4 - Replacement	B5 - Renovation	B6 - EE consumption	B7 - Water consumption	C1 - Demolition	C2 - Transport	C3 - Treatment for recovery	C4 - Disposal	D
<b>PENRT</b>	MJ	7,79E+02	2,77E+00	1,41E+01	1,58E-01	3,22E+02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	5,50E+00	0,00E+00	1,46E+00	0,00E+00
<b>SM</b>	kg	3,96E-01	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	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
<b>RSF</b>	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	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
<b>NRSF</b>	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	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
<b>FW</b>	m <sup>3</sup>	3,80E-01	6,59E-05	2,30E-04	5,11E-04	1,04E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,41E-04	0,00E+00	5,70E-05	0,00E+00
<b>HW</b>	kg	8,28E-01	8,07E-07	1,24E-02	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	0,00E+00	0,00E+00	0,00E+00
<b>NHW</b>	kg	3,06E+00	1,35E-03	6,22E-03	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,34E-07	0,00E+00	3,98E-08	0,00E+00
<b>RW</b>	kg	1,05E-05	1,01E-08	5,59E-08	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	0,00E+00	0,00E+00	0,00E+00
<b>REUSE</b>	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	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
<b>RECYCLE</b>	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	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
<b>EN-REC</b>	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	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
<b>EE-EL</b>	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	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
<b>EE-TH</b>	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	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
<b>GWP-GHG**</b>	kg CO <sub>2</sub> eq	4,59E+01	2,18E-01	7,78E-01	4,17E-03	8,49E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	4,19E-01	0,00E+00	1,11E-01	0,00E+00

Global warming potential-fossil (GWP-f); Global warming potential-biogenic (GWP-b); Global warming potential-land transformation (GWP-luluc); TOTAL Global warming potential- (GWP total); Ozone depletion potential (ODP); Acidification potential (AP); Eutrophication potential- Freshwater (EP - freshwater); Eutrophication potential- Marine (EP - marine); Eutrophication potential- Terrestrial (EP - terrestrial); Photochemical ozone creation potential (POCP); Abiotic depletion potential-mineral and metals (ADP-min&met); Abiotic depletion potential - fossil(ADP-fossil); Water deprivation potential (WDP); Primary energy resources - renewable(PERE); Primary energy resources renewable- raw material (PERM); ); Primary energy resources renewable - total(PERT); Primary energy resources – Not renewable (PENR); Primary energy

resources – Not renewable- raw material (PENRM); Primary energy resources – Not renewable – Total (PENRT); secondary material (SM); renewable secondary fuels (RSF); non-renewable secondary fuels (NRSF); Net use of freshwater (FW); Hazardous waste (HW); Non-hazardous waste (NHW); Radioactive waste (RW); Components for reuse (REUSE); Materials for recycling (RECYCLE); Materials for energy recovery (EN-REC); Exported electrical energy (EE-EL); Exported thermal energy (EE-TH); GWP-GHG (GWP-GHG).

*\* Disclaimer: The results of this environmental impact indicator should be used with caution because the uncertainties of these results are high or because there is limited experience with the indicator.*

*Note that the results of Modules A1-A3 should be considered together with the results of Module C. No liability is accepted if the modules are considered separately. The estimated impact results are only relative statements, not indicating impact category endpoints, exceedance of threshold values, safety margins, and/or risks.*

*\*\* This indicator considers all Greenhouse gases included in the total GWP. Absorption and emissions of biogenic carbon dioxide and biogenic carbon stored in the product are excluded from this indicator.*

#### **Information on the biogenic content of 1 m<sup>2</sup> of Recomposed Quartz**

<b>Biogenic carbon content</b>	<b>U.M.</b>	<b>Recomposed Quartz</b>
<b>Biogenic carbon content in the product</b>	kg	0
<b>Biogenic carbon content in packaging</b>	kg	5,55E-05

## ADDITIONAL INFORMATION

The table below shows the range variability, calculated on all included modules (modules A to C), for impact categories with variances greater than 10 percent. The declaration of these variances is required by PCR 2019:14 v.1.3.4 for EPDs of multiple products.

INDICATOR	Unit	Reported Impacts (A1-A3)	Maximum variation
GWP-fossil	kg CO <sub>2</sub> eq	4,57E+01	211%
GWP-biogenic	kg CO <sub>2</sub> eq	2,01E+00	201%
GWP-land transformation	kg CO <sub>2</sub> eq	6,11E-02	322%
<b>TOTAL global warming - GWP total</b>	kg CO <sub>2</sub> eq	4,78E+01	210%
Depletion of the ozone layer - ODP	kg CFC-11 eq	1,01E-06	257%
Terrestrial acidification - AP	moli H <sup>+</sup> eq	1,64E-01	195%
Freshwater eutrophication - EP - freshwater	kg P eq	1,01E-02	216%
Marine eutrophication - EP - marine	kg N eq	3,46E-02	209%
Terrestrial eutrophication - EP - terrestrial	moli N eq	3,50E-01	207%
Tropospheric ozone formation - POCP	kg NMVOC eq	2,03E-01	223%
Elementary abiotic resource depletion - ADP-min&met	kg Sb eq	2,01E-05	180%
Fossil abiotic resource depletion - ADP-fossil	MJ	7,79E+02	229%
Water use- WDP	m <sup>3</sup> eq	1,66E+01	150%

The variations observed through in relation to these environmental impact categories are mainly attributable to variation in raw material input quantities. In addition to raw material quantities, what varies is the packaging for the different thicknesses made and the final destination of the product. All products in this EPD are made through the same production cycle.

# OTHER ENVIRONMENTAL INFORMATION

STONE ITALIANA has been ISO 14001 certified since 2012. Through its Corporate Management System, it designs, plans and keeps the following activities under control for the benefit of the internal and external environment:

- Constant efforts of the detection of substances hazardous to health by identifying all risk materials released into the environment during the manufacturing and preparation activities of semi-finished and finished products. Solvents used during manufacturing processes are within legal limits on air emissions and air quality both during processing and final product use. No toxic metal components are used;
- Strong focus on the decrease and control of VOC (Volatile Organic Compounds) emissions: emissions are identified and initiatives are activated and maintained to decrease emissions during the production and/or finished product stage;
- Monitoring and control of emissions as required by law;
- Purchase of substances with lower VOC content;
- Workplace chemical analysis and clinical analysis of workers;
- Use of renewable resources instead of non-renewable resources;
- Continuous focus on materials that contain recycled content: Stone Italiana is constantly striving to analyze solutions to reuse waste materials from work processes in order to create new and innovative materials for tops, floors and walls;
- Recycling: initiatives are implemented that contribute to product recycling;
- Labeling, certification, and life cycle assessment of any product or material;
- When acquiring raw materials, identification of purchased materials according to criteria of environmental sustainability or conservation of natural resources.



# BIBLIOGRAPHY

1. ISO 14040:2021 Environmental management – Life cycle assessment - Principles and Framework
2. ISO 14044:2021 Environmental management – Life cycle assessment – Requirements and guidelines for life cycle assessment (LCA)
3. General Programme Instructions for Environmental Product Declarations, version 4.0 dated 2021/03/29.
4. General Programme Instructions for Environmental Product Declarations, version 5.0 dated 2024/06/19.
5. EN15804:2012+A1:2013 Sustainability of construction - Environmental product declarations - Development framework rules by product category
6. PCR 2019:14 Construction products (EN 15804:A2) (version 1.3.4 published 30/04/2024 valid until 20/06/2025)
7. Valutazione del ciclo di vita di prodotti ricomposti, rev. 00 febbraio 2025

# REFERENCES

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**Stone Italiana S.p.A.**

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**Programme:** The International EPD® System EPD International AB

**Address:** EPD International AB Box 210 60 - SE-100 31 Stockholm - Sweden [www.environdec.com](http://www.environdec.com) - [info@environdec.com](mailto:info@environdec.com)

Product Category Rules (PCR):
The standard CEN EN 15804 is used as basic PCR
PCR 2019:14 Construction products; version 1.3.4
Revision of the PCR conducted by: The Technical Committee of the International EPD System. Visitare <a href="http://www.environdec.com">www.environdec.com</a> per un elenco dei membri. Review chair: Claudia A. Peña, University of Concepción, Chile. The review committee can be contacted through the secretariat ( <a href="http://www.environdec.com/contact">www.environdec.com/contact</a> ).
Life Cycle Assessment (LCA)
Study conducted by da Ambiente Italia s.r.l
Third-party verification:
Third-party verification of the statement and data, in accordance with ISO 14025:2006 by: <input type="checkbox"/> independent auditor <input type="checkbox"/> EPD certification <input checked="" type="checkbox"/> Process EPD Certification CSQA, accredited certification body and responsible for third-party verification . The certification body is accredited by Accredia (N° accreditation 00070)
The procedure for data follow-up during EPD validity involves a third-party verifier: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

The owner of the EPD has absolute ownership, obligations and responsibility over the EPD.

EPDs of the same product category, but from different programs, may not be comparable. EPDs of construction products may not be comparable if they do not comply with EN 15804:2012+A2:2019.

For more information on comparability, please refer to EN15804:2012+A2:2019 and ISO 14025:2010.