DAPHabitat System

Environmental Product Declaration

www.daphabitat.pt

[according to ISO 14025, EN 15804:2012+A2:2019 e EN 15942]

Declaration number: DAP 009:2025

COMPACT MARBLE RMC (12 mm of thickness)

Issue date: 08/07/2025 **Valid until:** 07/07/2030

RMC SURFACES, S.A.

beyond the stone

Cluster Habitat Sustentável

Version 1.5 Edition June 2024

Index

1. GENERAL INFORMATION

1.1. The DAPHabitat System

Programme operator:	Associação Plataforma para a Construção Sustentável www.clusterhabitat.pt geral@clusterhabitat.pt
Address:	Departamento Engenharia Civil Universidade de Aveiro 3810-193 Aveiro
Email address:	deptecnico@clusterhabitat.pt
Telephone number:	(+351) 234 401 576
Website:	www.daphabitat.pt
Logo:	

1.2. EPD owner

Name of the owner:	RMC Surfaces, S.A.
Production site and head office:	Rua Correia da Coutinha, Nº 1 | 3770 - 218 Oliveira do Bairro - Portugal
Telephone number:	+(351) 234 740 400
Email address:	info@rmc.pt
Website:	https://www.rmc.pt/
Logo:	
Information concerning the applicable management Systems:	ISO 9001:2015
Specific aspects regarding production:	Principal CAE: 23701 Secondary CAE: 43330
Organization's environmental policy:	RMC is dedicated to establishing a lasting and environmentally friendly presence in the compact marble industry. Our mission is not only to provide high-quality marble products but to do so in a way that prioritizes sustainability and positive change in the construction and materials sectors. Through our commitment to sustainability, we strive to minimize waste, reduce carbon emissions, and preserve natural resources. Our goal is to create a sustainable path that not only benefits the marble industry but also has a positive impact on the construction and materials sectors.

1.3. Information concerning the EPD

Authors:	1. Centro Tecnológico da Cerâmica e do Vidro 2. RMC Surfaces, S.A.
Contact of the authors:	1. CTCV materials: habitat | iParque – Parque Tecnológico de Coimbra - Lote 6 | 3040-540 Antanhol – Portugal (T) +351 239 499 200. Marisa Almeida: marisa@ctcv.pt 2. RMC Surfaces, S.A. Rua Correia da Coutinha, Nº 1 | 3770 - 218 Oliveira do Bairro - Portugal (T) +(351) 234 740 400. Rita Lopes: ritalopes@rmc.pt
Issue date:	08/07/2025
Registration date:	21/07/2025
Registration number:	DAP 009:2025
Valid until:	07/07/2030
Representativity of the EPD (location, manufacturer, group of manufacturers):	EPD for one (1) product class, produced at one (1) industrial unit, belonging to a single (1) manufacturer (RMC - Oliveira do Bairro). RMC Surfaces, S.A. has 5 product collections, namely: Merrazzo Collection; Original Collection; Classico Collection; Genesis Collection & Revo Collection
Type of EPD	EPD from cradle-to-grave and module D (A, B, C e D).

1.4. Verification demonstration

External independent verification, accordingly, with the standard ISO 14025:2010 and EN 15804:2012+A2:2019	
Certification Body	Verifier
	
(CERTIF – Associação para a Certificação)	(Ana Cláudia Dias)

1.5. EPD registration

Programme operator

(Plataforma para a Construção Sustentável)

1.6. PCR (Product Category Rules) basic model

Name:	Base model PCR for construction products
Issue date:	June 2024 Edition
Number of registrations on the database:	RCP-mb001
Version:	Version 3.0
Identification and contact of the coordinator(s):	Marisa Almeida | marisa@ctcv.pt Luís Arroja | arroja@ua.pt José Dinis Silvestre | jose.silvestre@ist.utl.pt
Identification and contact of the authors:	Marisa Almeida | marisa@ctcv.pt Luís Arroja | arroja@ua.pt José Silvestre | jds@civil.ist.utl.pt Fausto Freire Cristina Rocha Ana Paula Duarte Ana Cláudia Dias Helena Gervásio Victor Ferreira Ricardo Mateus António Baio Dias
Composition of the Sectorial Panel:	-
Consultation period:	18/11/2015 - 18/01/2016 12/08/2023 – 30/11/2023
Valid until:	01/06/2027

CEN standard EN 15804 serves as the core Product Category Rules (PCR).

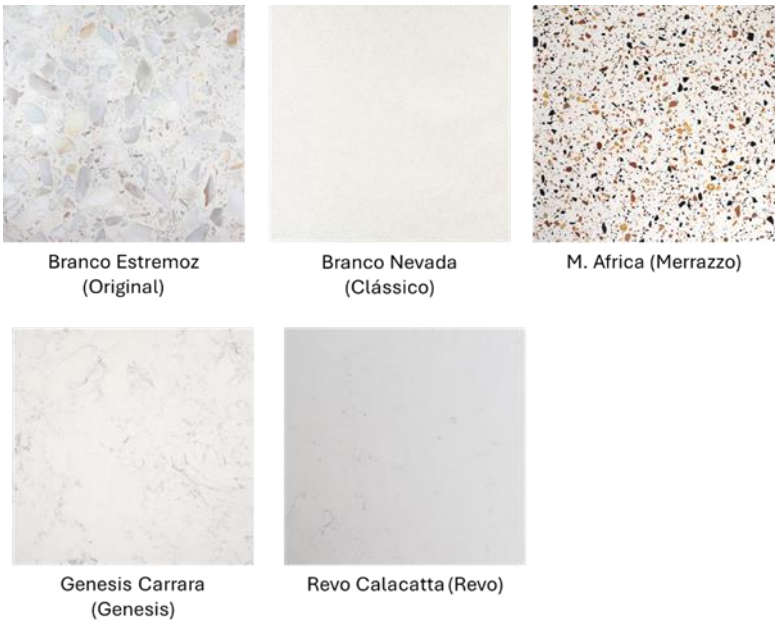
1.7. C-PCR (Complementary Product Category Rules)

Name:	1. PCR: Floor Covering 2. PCR: Wall Covering 3. PCR: Sanitary Ware [Toilets and Kitchens]
Issue date:	1. 10/02/2014 2. 10/02/2014 3. 10/02/2014

Number of registrations on the database:	1. PCR001:2014 2. PCR002:2014 3. PCR005:2014
Version:	1. Version 1.2 (june 2022) 2. Version 1.2 (june 2022) 3. Version 1.3 (june 2022)
Identification and contact of the coordinator(s):	1. PCR: Floor Covering • Luís Arroja | arroja@ua.pt • Marisa Almeida | marisa@ctcv.pt 2. PCR: Wall Covering • Luís Arroja | arroja@ua.pt • Marisa Almeida | marisa@ctcv.pt 3. PCR: Sanitary Ware • Cristina Rocha | cristina.rocha@lneg.pt • Paula Duarte | paula.duarte@lneg.pt
Identification and contact of the authors:	1. PCR: Floor Covering • Luís Arroja | arroja@ua.pt • Marisa Almeida | marisa@ctcv.pt • Ana Cláudia Dias| acdias@ua.pt 2. PCR: Wall Covering • Luís Arroja | arroja@ua.pt • Marisa Almeida | marisa@ctcv.pt • Ana Cláudia Dias| acdias@ua.pt 3. PCR: Sanitary Ware • Cristina Rocha| cristina.rocha@lneg.pt • Paula Duarte | paula.duarte@lneg.pt • Marisa Almeida | marisa@ctcv.pt
Composition of the Sectorial Panel:	1. PCR: Floor Covering • RMC - Revestimentos de Mármore Compactos, S.A. • Dominó – Indústrias Cerâmicas, S.A. • APICER – Associação Portuguesa da Indústria de Cerâmica • Sonae Indústria, SGPS, S.A. 2. PCR: Wall Covering • RMC - Revestimentos de Mármore Compactos, S.A. • Dominó – Indústrias Cerâmicas, S.A. • Sonae Indústria, SGPS, S.A. • APICER – Associação Portuguesa da Indústria de Cerâmica 3. PCR: Sanitary Ware • RMC - Revestimentos de Mármore Compactos, S.A. • Sanindusa-Indústrias de Sanitários, S.A. • Sanitana • APICER-Associação Portuguesa da Indústria de Cerâmica
Consultation period:	1. 01/08/2013 - 30/11/2013 2. 12/08/2013 - 30/11/2013 3. 11/09/2013 - 30/11/2013

Valid until:	1. 01/06/2027 2. 01/06/2027 3. 01/06/2027

1.8. Information concerning the product/product class

Identification of the product:	Compact Marble (Original, Merrazzo, Clássico, Genesis, Revo), with a thickness of 12 mm.
Illustration of the product:	Examples:  Figure 1 shows an example of the quality of the work produced after installation.  Figure 1 - Examples of RMC compact marble application.

Brief description of the product:

The RMC product is a compact marble, obtained by bonding carefully selected pieces of marble with different granulometries, using a polyester resin developed for this application.

RMC Surfaces, S.A. has five product collections, named Original, Merrazzo, Classico, Genesis, and Revo, which are mainly characterized by the granulometry of the aggregates used (ranging from a maximum size of 60 mm in the Original collection to less than 1 mm in the Revo collection).

Main technical characteristics of the product:

Compact marble is produced in different thicknesses using the same raw material recipe as the 12 mm product.

Table 1: Product technical characteristics

Características Técnicas | Technical Characteristics	Norma | Standard	Resultado | Value	Classe | Class
Massa Volúmica Aparente | Density	EN 14617-1	2430 - 2520 kg/m^3	n.a.
Absorção de Água | Water Absorption	EN 14617-1	0.01 - 0.70 %	W2, W3, W4 (1)
Resistência à Flexão | Flexural Strength	EN 14617-2	10.7 - 37.7 MPa	F1, F2, F3 (2)
Resistência ao Desgaste | Abrasion Resistance	EN 14617-4	≤20 - ≤34.8 mm	A2, A3, A4 (3)
Dureza Mohs | Mohs Hardness	EN 101	3 - 4 Mohs	n.a.
Resistência ao Choque | Impact Resistance	EN 14617-9	1.4 - 1.8 J (12 mm) 2.4 - 4.2 J (20 mm) 4.2 - 8.3 J (30 mm)	n.a.
Resistência Química | Chemical Resistance	EN 14617-10	Ácido | acid < 60 % Base | alkali > 80 %	C1 (4) C4 (4)
Reação ao Fogo | Reaction to Fire	EN 13501-1	n.a.	$A2_{FL}$ - S1 - d0
Resistência ao Gelo | Freeze and Thaw Resistance	EN 14617-5	Sem defeitos visíveis | Without visible defects KM_{F25} = 0.87 - 1.09	n.a.
Resistência ao Choque Térmico Thermal Shock Resistance	EN 14617-6	Sem defeitos visíveis | Without visible defects ΔR_{f20} = 1-4 - 18.1 (%) Δm = 0.01 - 0.05 (%)	n.a.
Condutibilidade Térmica | Thermal Condutivity	EN 12664 ISO 8302	0.9556 - 2.175 W/m.K	n.a.
Coeficiente de Dilatação Térmica Linear Linear Thermal Expansion Coefficient	EN 14617-11	9.7 - 21.2 x 10^{-6} °C^{-1}	n.a.
Resistência à Compressão | Compressive Strength	EN 14617-15	100 - 150 MPa	n.a.

Table 2: Weight of RMC slabs and conversion factors (compact marble).

Thickness [mm]	Weight of 1 slab [kg]	Specific weight [kg/m²]	Conversion factor
12	69	29.70	1.00
20	115	49.50	1.67
25	144	61.88	2.08
30	173	74.25	2.50
42	242	103.95	3.50
52	297	128.70	4.33

Description of the product's application/use:

Floor coverings, façades, and wall cladding, as well as Cut-to-size products, including countertops and shower bases.

Placing on the market / Rules of application in the market / Technical rules of the product:	For flooring, RMC meets the requirements of the harmonized standard EN 15285:2008, as evidenced by a Declaration of Performance, in accordance with the European Standard: EN 15285:2008 – Agglomerated Stone – Modular Tiles for Flooring and stairs (internal and external). RMC also complies with the standard 15286:2013 - Agglomerated stone - Slabs and tiles for wall finishes (internal and external) and the standard EN 16954:2018 - Agglomerated stone - Slabs and cut-to-size products for flooring and stairs (internal and external).
Quality control	RMC has implemented a quality management system. The products are subject to quality control in accordance with the product's technical standards.
Special delivery conditions:	Not applicable.
Components and substances to declare:	The product does not contain any substance from the REACH candidate list of substances of very high concern at a concentration greater than 0.1% by weight. The typical composition includes:
Where explanatory material may be obtained:	https://www.rmc.pt/pt/documentos
History of the LCA studies:	Not applicable.

% **Marble/stone**	**% Resin**	**% Additives**
88 – 95 %	5 – 10 %	≤ 2 %

1.9. Calculation rules of the LCA

Funcional unit:	1 m² of compact marble, with a specific weight of 29,70 kg/m², and a reference service life of 50 years.
System boundaries:	EPD from cradle-to-grave and module D (A, B, C e D).
Criteria for the exclusion:	The following processes were not considered in this study: • Environmental impacts associated with the construction of industrial infrastructure and the manufacturing of machinery and equipment; • Environmental impacts related to infrastructure (production and maintenance of vehicles and roads) for the transportation of pre-products; • Long-term emissions.
Assumption and limitations:	EPD presented for the compact marble manufactured in a single industrial unit. The results of the environmental impacts and other indicators presented in this EPD refer to the year 2023.
Quality and other characteristics about the information used in	The generic data used belong to the Ecoinvent v3.9.1 database and comply with the quality criteria (age, geographic and technological coverage, plausibility, etc.) for generic data.

the LCA:	The information based on the LCA and additional information declared in this EPD complies with the requirements of the applicable European and Portuguese Standards. According to the criteria defined in Table E.1 of Annex E of the EN 15804+A2+AC standard, as outlined by the "UN Environment Global Guidance on LCA database development," the quality of all relevant data is considered to be from mostly "good", on a five-level qualitative scale, ranging from very poor to very good. The data quality for Module D is also predominantly good to very good. The dataset used to model electricity and natural gas production was adapted to the national reality. The electricity mix was updated for the year 2023 using information from Redes Energéticas Nacionais (REN), the Entidade Reguladora dos Serviços Energéticos (ERSE), and Direção-Geral de Energia e Geologia (DGEG) to obtain more up-to-date results regarding the environmental impacts generated by the electricity grid in Portugal.
Allocation rules:	The RMC industrial unit produces only compacted marble (Merrazzo Collection, Original Collection, Classico Collection, Genesis Collection, and Revo Collection) and does not manufacture other types. Therefore, there was no need to allocate inputs and outputs within the system.
Software used for the assessment:	SimaPro, version 9.5.0.2
Background database used for the LCA:	Ecoinvent database version 3.9.1, published in March 2023; "cut-off" approach.
Comparability of EPD for construction products:	The EPD of construction products and services cannot be comparable in case they are not produced according to EN 15804 and EN 15948 and according to the comparability conditions determined by ISO 14025.

1.10. Use of the average environmental performance

This EPD presents the environmental performance of the compact marble product range, with the environmental impacts referenced to a thickness of 12 mm, produced by RMC. The same product is produced with different thicknesses using the same raw material recipe (see Table 2).

The variability in environmental performance between specific products depends on the specific weight, which ranges from 29.7 kg/m² to 128.7 kg/m². To obtain the performance of a specific product different from the one presented with the specified thickness, you should multiply by scale factors present in table 2.

Given the variations in the proportions of stone, resin, and additives among the different collections analyzed, the results of the Life Cycle Impact Assessment (LCIA) show variability across the different impact categories. This variability can range between -10% and 35%, depending on the category, with the exception of the potential for abiotic resource depletion (non-fossil), which can reach up to 86%, and human toxicity, with variations of up to 40%.

1.11. Technical information for Reference Service Life (RSL)

It depends on the lifespan of a building and its components; therefore, the standard value of 50 years will be considered.

Parameter	Results*
Reference Service Life	50 years
Declared product properties (at the gate) and finishes, etc.	See table 1 and 2
Design application parameters (if instructed by the manufacturer), including the references to the appropriate practices and application codes	Not applicable
An assumed quality of work, when installed in accordance with the manufacturer's instructions	See images – pictures of the product
Outdoor environment, (for outdoor applications), e.g. weathering, pollutants, UV and wind exposure, building orientation, shading, temperature	Applicable
Indoor environment (for indoor applications), e.g. temperature, moisture, chemical exposure	Applicable
Usage conditions, e.g. frequency of use, mechanical exposure	Not applicable
Maintenance e.g. required frequency, type and quality and replacement of components	Recommended cleaning agent for surfaces sensitive to damage or loss of shine, such as compact marble.
** expressed by functional unit	

1.12. Flow diagram of input and output of the process

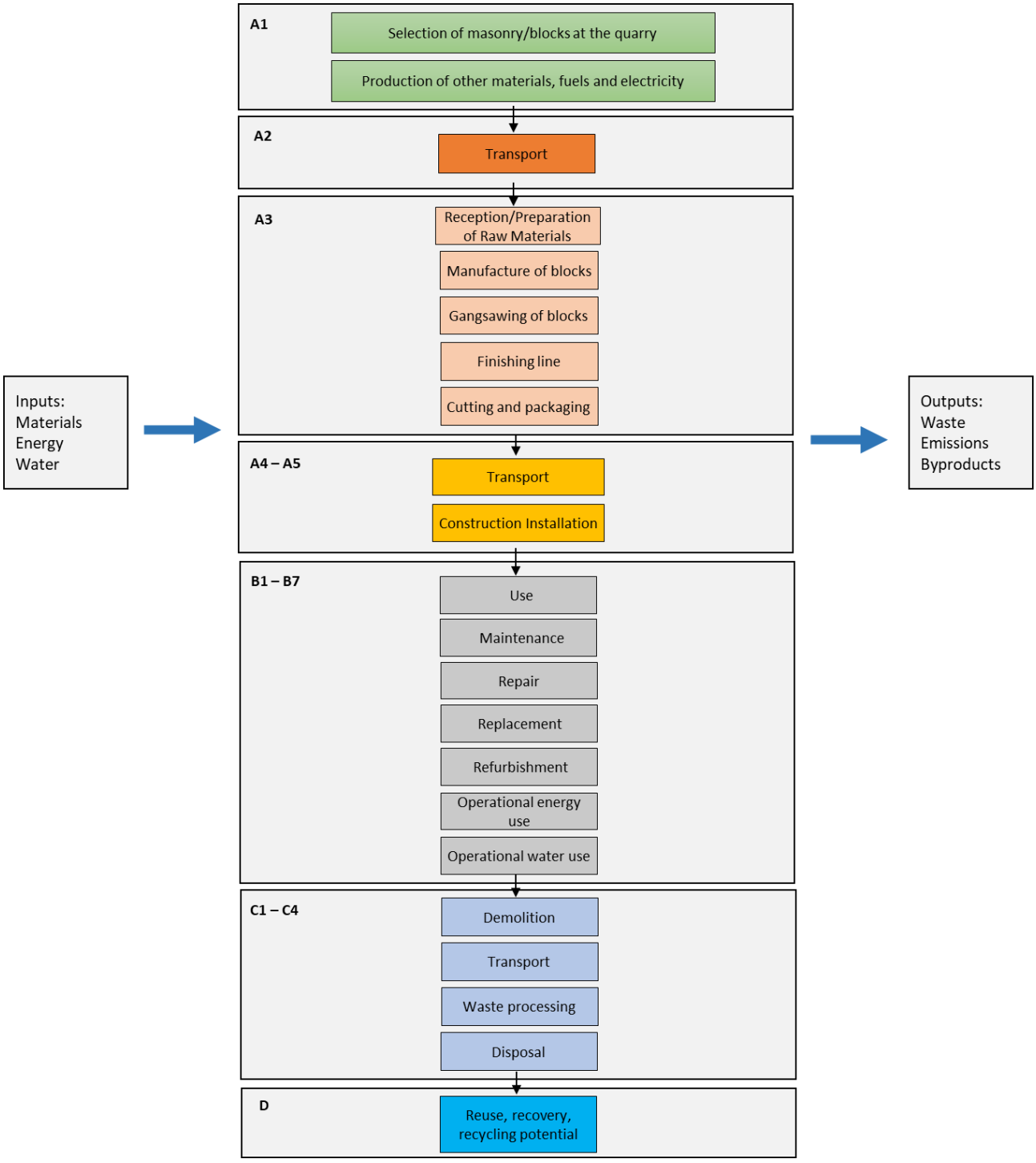


Figure 2: Life cycle stages and unit processes of the product.

2. CORE ENVIRONMENTAL IMPACT INDICATORS

2.1. Description of the system boundaries

(✓= included; ND = module not declared)

PRODUCT STAGE			CONSTRUCTION PROCESS STAGE		USE STAGE							END OF LIFE STAGE				BENEFITS AND LOADS BEYOND THE SYSTEM BOUNDARY
Raw material supply	Transport	Manufacturing	Transport	Construction installation process	Use	Maintenance	Repair	Replacement	Rehabilitation	Operational energy use	Operational water use	Deconstruction and demolition	Transport	Waste process	Disposal	Reuse, recovery, potential recycling
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Production Stage, A1 - A3:

This stage includes modules A1 (Extraction and processing of raw materials), A2 (Transportation), and A3 (Manufacturing).

Regarding transportation (module A2), raw materials and auxiliary materials arrive at the facility by road, in trucks and by sea.

Regarding stage A3 (Manufacturing), the manufacturing process of the compact marble products produced at RMC includes the following stages:

- **Reception/Preparation of Raw Materials;**
- **Block Manufacturing;**
- **Block Gangsawing;**
- **Finishing Line;**

- Cutting and Packaging.

The production stages of compact marble are described below, with a schematic representation presented in Figure 3.

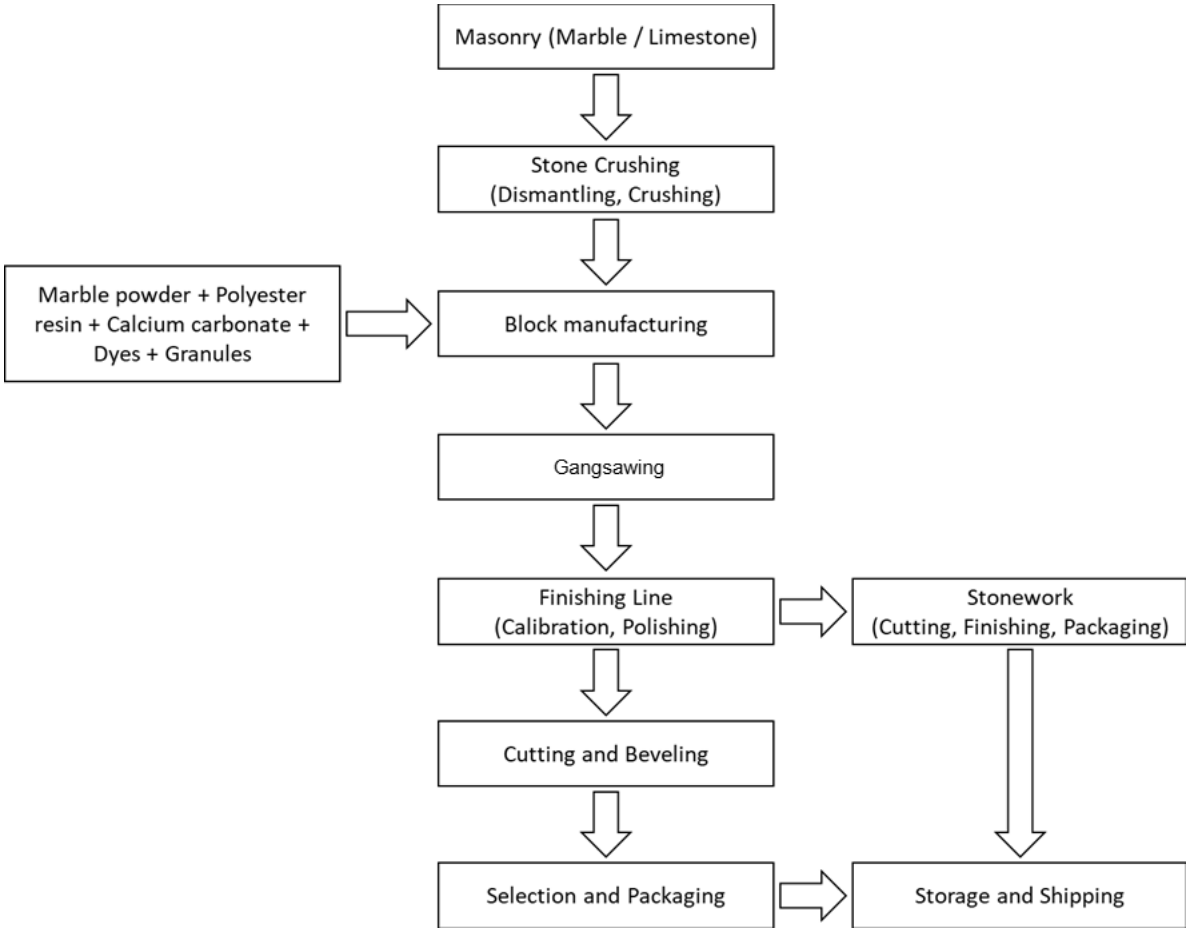


Figure 3: Flowchart of the production process.

Reception/Preparation of Raw Materials

The main raw material for the process is marble stone, which, depending on the type of stone, may be supplied in the form of masonry or irregular blocks, both considered as waste for the extractive industry. To ensure the quality and homogeneity of the stones, all received stones are separated by type and assessed for their color tone to remove those that are not compatible with the desired result. Depending on the size of the stones to be used (bigger than 50 cm), there may be an additional dismantling step to achieve the appropriate size for entering the crusher and proceed with the stone crushing stage. During this stage, material of various granulometries is produced, separated by size

through a sieve system, and stored in a silo battery until it is used. In addition to the stone, other raw materials are used during the production process:

- Carbonates and marble powder, which are ready to use in specific silos;
- Stone granules or others, already purchased in the final use format, with no need for the crushing stage;
- Pigments, catalysts, accelerators, and inhibitors, purchased in appropriate proportions due to their shorter shelf life;
- Unsaturated resin, orthophthalic polyester, purchased in bulk, stored in appropriate tanks.

Block Manufacturing

The block manufacturing process begins with weighing stones of different granulometries and/or stone aggregates, marble dust, and carbonate. After the materials are added to the mixer, pigments are introduced, and a first phase of dry mixing is carried out at atmospheric pressure. This is followed by the addition of resin, accelerator and/or inhibitor, and catalysts. After the resin is incorporated into the mixture, part of the mixing is done under vacuum to release any air trapped inside the viscous mass. Once the mixing phase is complete, the viscous mass is discharged into a moving mold to ensure a good distribution within it. Subsequently, this mass is compacted by a vibrocompression system, which, combining compression and vibration, allows the production of a compact block with low porosity. The blocks then undergo a resting period, called the "curing time," which is the necessary time for the block to achieve a minimum degree of solidification before it can be demolded and transported to the storage location. At the storage site, the curing process continues at room temperature for a minimum of 7 days.

Gangsawing of Blocks

Gangsawing of blocks involves slicing the blocks into slabs of a specific thickness (see table 2). To ensure the parallelism of the block and achieve optimal utilization of the number of slabs, as well as to avoid oscillations during the cutting process, the faces of the blocks are rectified. This process is carried out using a movable carriage and two fixed diamond discs arranged laterally. The actual cutting process is performed by a set of diamond blades, also referred to as a "comb," and the number of slabs obtained from each block depends on the thickness of the slab, as shown in Table 1. The slabs obtained are stored in the sawed slab yard before proceeding to the finishing line.

Finishing Line

The finishing process of the slabs begins with the automatic entry of the slabs into the line, with the help of a loader. In the first stage, a pre-polishing of the material is performed, which, as the name suggests, prepares the material for the polishing that will occur later. Then, the slabs may or may not

undergo a "stuccoing" stage, depending on the material in question. In this process, a paste (stucco) is uniformly applied over the entire surface of the slab, which has been previously dried, using rotating spatulas. This operation is primarily aimed at sealing any pores that the material may contain, as well as covering any irregularities. After this stage, the material goes through an oven to allow the stucco to dry quickly, before proceeding with the surface finishing. The final surface finish is performed in a polishing machine using abrasives and water. Generally, the grit size of the abrasives decreases from the first head, which has a more abrasive action, to the last, which simply serves to give the material a shiny appearance. The set of abrasives used is adjusted depending on the type of material and the desired final finish. The action of the abrasives is always accompanied by a flow of water, which, in addition to carrying away the residues from the abrasive wear, lubricates the material's surface, preventing it from overheating and consequently avoiding a "burned" appearance on the surface. Bush-hammered, sandy and satin finishes are also achieved in this phase with the appropriate tools for the task.

Cutting and Packaging

At the end of the process, the material can have two distinct destinations:

• Entry for cutting into tiles, which follows the polishing line;

• Exit from the line as slabs for finished slab stock, for direct sale or further use.

The cutting of slabs into tiles is performed through longitudinal and transverse cuts using diamond discs and water cooling. This can result in tiles of various dimensions, depending on the customer's request. In addition to cutting, the tiles may or may not be beveled, also depending on the customer's request. Beveling is done through the action of abrasives that wear down the edges of the tiles. After this, the tiles are dried and cleaned so that the material can be carefully selected and classified according to its quality (1st, 2nd, or 3rd). The 1st quality material is packaged and sent to the finished product warehouse. As for the lower-quality material, it will be further cut into smaller sizes.

Regarding the exit of the line as slabs, every finished slab is checked and classified as 1, 1A, 2, and 3, according to its quality. In addition to direct sales, the finished slabs can later be used by another cutting section in the facility, called *Cantarias*. This section produces cut-to-size products upon customer request, such as countertop surfaces, thresholds, panels, mirrors, steps, tables, and more. All the final products from this section are also inspected before packaging.

Construction Stage; A4 – A5

The A4 module includes the transportation from the production site to the consumer or the installation site of the compact marble products. Three scenarios were considered:

• A4(1) – 250 km by road, by truck;

• A4(2) – 1390 km by road, by truck;

• A4(3) – 3650 km by sea, by ship.

The A5 phase corresponds to the construction and installation in the building. In this scenario, no energy is consumed during installation, only hand work is required. The A5 module also considers the processing of packaging waste (recycling, incineration, disposal). The scenario considers 3.3 kg of cement mortar per m² of compact marble tile and 2-3% waste loss is assumed at the installation site of the product.

Table 3. Product transportation scenarios (A4)

Scenario	Destination	Type of transport	Average distance (km)	Utilization capacity (including return trip)	Apparent density (kg/m³)	Useful capacity factor
Scenario A4.1	National	Truck with a capacity of 25 tons	250	0.60	2370 – 2580	<1
Scenario A4.2	Europe	Truck with a capacity of 25 tons	1390	0.60	2370 - 2580	<1
Scenario A4.3	International (Outside Europe)	Transoceanic cargo ship	6 520	0.70	2370 - 2580	<1

Use Stage; B1 – B7

Module B1 refers to the use of the compact marble product, and it should be noted that the use of this product does not release any substances into the environment, so the environmental impacts considered in B1 were zero.

In stage B2 and depending on the installation conditions and multiple applications for final finishing, compact marble products have maintenance needs that include cleaning routines (daily or weekly) for a minimum useful life of 50 years. The company provides a manual with recommendations to maintain the quality and finishing conditions of the product throughout the material's service life. If the surface becomes dirty or oily, cleaning products, such as detergents, can be used. Therefore, water and detergent consumption was considered in the EDP based on a weekly cleaning routine.

Modules B3-B4-B5 are related to the replacement, repair, and rehabilitation of the tiles. If the tiles are correctly installed, no repair, replacement, or rehabilitation process will be necessary. For this reason, zero impact is assumed on modules B3-B4-B5.

Modules B6-B7 consider the use of energy and water to operate technical systems integrated into buildings (heating, cooling, ventilation, lighting, hot water, etc.). The operational use of energy or water is not considered.

End-of-Life Stage; C1 – C4

The end-of-life stage consists of the following modules: Deconstruction/Demolition (C1); transportation of waste to the processing and end-of-life site (C2); waste treatment for reuse, recovery, and/or recycling (C3); and disposal (C4).

Regarding module C1, there are no statistics available that demonstrate common dismantling practices for the reuse or recovery of the material at the end of its service life. A generic demolition process is assumed, involving the use of heavy machinery, as well as the generation of atmospheric emissions during this activity, in accordance with the standard process in the ecoinvent 3.9.1 database.

For the compact marble product, 75% was considered for recycling (C3) and 25% for landfill (C4). The end-of-life stage is the final phase of a material's life cycle, but it can become the first if, after demolition, recycling and reuse of the waste are carried out, i.e., the valorization of the material considered at the end of its useful life.

Recycling/Reuse/Recovery Potential; Module D

The impacts and benefits of this phase are included within the system boundaries and, therefore, are evaluated. It was considered that 75% of the waste is recycled at the end of its life (for example, by replacing crushed stone, dolomite, based on statistical data on Construction and Demolition Waste from the Portuguese Environment Agency).

2.1.1. Justification for the exemption to declare modules C and D

Not applicable.

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

2.2. Core environmental impact indicators

		Global warming potential - total;	Global warming potential fossil;	Global warming potential - biogenic;	Global warming potential land use and land use change;	Depletion potential of the stratospheric ozone layer;	Acidification potential;
		GWP-total	GWP-fossil	GWP-biogenic	GWP-luluc	ODP	AP
Unit		kg CO_2 eq.	kg CO_2 eq.	kg CO_2 eq.	kg CO_2 eq.	kg CFC 11 eq.	mol H^+ eq.
Modules A1-A3		1.75E+01	1.89E+01	-1.42E+00	3.75E-02	1.12E-06	7.64E-02
Module A4	Scenario A4.1	1.39E-03	1.11E+00	3.35E-04	2.17E-05	2.40E-08	1.39E-03
	Scenario A4.2	7.75E-03	6.16E+00	1.86E-03	1.21E-04	1.33E-07	7.75E-03
	Scenario A4.3	5.80E-02	1.84E+00	2.82E-04	6.17E-05	2.76E-08	5.80E-02
Module A5		4.27E-03	1.27E+00	1.03E+00	1.25E-03	3.63E-08	4.27E-03
Module B1		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Module B2		4.07E-03	5.37E-01	5.14E-03	3.72E-04	4.08E-08	4.07E-03
Module B3		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Module B4		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Module B5		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Module B6		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Module B7		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Module C1		1.16E-03	1.21E-01	2.25E-05	4.95E-06	1.91E-09	1.16E-03
Module C2		2.79E-04	2.22E-01	6.70E-05	4.34E-06	4.79E-09	2.79E-04
Module C3		1.86E-03	2.42E-01	1.94E-03	1.09E-04	4.04E-09	1.86E-03
Module C4		6.45E-04	7.73E-02	5.26E-05	8.34E-05	1.20E-09	6.45E-04
Module D		-6.83E-04	-2.75E-02	-3.42E-06	-6.03E-06	-4.06E-10	-6.83E-04

LEGEND:

- Product stage
- Construction process stage
- Use stage
- End of life stage
- Benefits and loads beyond the system boundary

NOTES: Units expressed by functional unit (1m²).

		Eutrophication potential aquatic freshwater;	Eutrophication potential aquatic marine;	Eutrophication potential terrestrial;	Formation potential of tropospheric ozone;	Abiotic depletion potential for non-fossil resources;	Abiotic depletion potential for fossil resources potential;	Water (user) deprivation potential;
		EP-freshwater	EP-marine	EP-terrestrial	POCP	ADP-minerals&metals	ADP-fossil	WDP
Unit		kg P eq.	kg N eq.	mol N eq.	Kg COVNM eq.	kg Sb eq.	MJ, P.C.I	m³ World eq. deprived
Modules A1-A3		3.96E-04	2.01E-02	1.66E-01	7.10E-02	1.57E-03	3.65E+02	1.69E+01
Module A4	Scenario A4.1	8.71E-07	3.46E-04	3.37E-03	2.60E-03	3.81E-08	1.47E+01	1.35E-02
	Scenario A4.2	4.84E-06	1.92E-03	1.87E-02	1.44E-02	2.12E-07	8.20E+01	7.51E-02
	Scenario A4.3	1.33E-06	1.45E-02	1.60E-01	4.26E-02	1.99E-08	2.27E+01	1.98E-02
Module A5		2.16E-05	1.19E-03	1.11E-02	3.96E-03	4.70E-05	1.44E+01	6.40E-01
Module B1		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Module B2		1.67E-05	4.93E-04	5.40E-03	2.27E-03	2.66E-07	1.84E+01	1.11E+01
Module B3		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Module B4		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Module B5		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Module B6		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Module B7		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Module C1		1.04E-07	5.45E-04	5.93E-03	1.74E-03	5.09E-09	1.60E+00	2.04E-03
Module C2		1.74E-07	6.91E-05	6.74E-04	5.19E-04	7.62E-09	2.95E+00	2.70E-03
Module C3		3.98E-06	7.99E-04	8.70E-03	2.60E-03	1.02E-08	3.51E+00	1.23E-02
Module C4		1.97E-07	2.95E-04	3.20E-03	9.49E-04	3.70E-09	1.01E+00	1.69E-03
Module D		-1.23E-07	-2.46E-04	-3.48E-03	-7.53E-04	-6.31E-09	-3.40E-01	-2.15E-03

LEGEND:

- Product stage
- Construction process stage
- Use stage
- End of life stage
- Benefits and loads beyond the system boundary

NOTES: P.C.I. – Net calorific value

Units expressed by functional unit (1m²).

"The results obtained for the indicators "Abiotic depletion potential for non-fossil resources (ADP-minerals&metals)", "Abiotic depletion potential for fossil resources potential (ADP-fossil)" and "Water (user) deprivation potential (WDP)" should be used with caution since the uncertainties associated with them are high or there is little experience with the indicator."

2.3. Additional environmental impact indicators

		Potential incidence of disease due to PM emissions	Potential Human exposure efficiency relative to U235	Potential Comparative Toxic Unit for ecosystems	Potential Comparative Toxic Unit for humans, cancer effects	Potential Comparative Toxic Unit for humans, not cancer effects	Potential soil quality index
		PM	IRP	ETP-fw	HTP-c	HTP-nc	SQP
Unit		Disease incidence	kBq U 235 eq.	CTUe	CTUh	CTUh	-
Modules A1-A3		4.45E-06	6.12E-01	2.34E+02	1.86E-08	1.82E-07	2.75E+02
Module A4	Scenario A4.1	6.68E-08	2.35E-03	6.55E+00	6.88E-11	7.63E-09	2.80E-02
	Scenario A4.2	3.71E-07	1.30E-02	3.64E+01	3.82E-10	4.24E-08	1.56E-01
	Scenario A4.3	4.39E-08	2.48E-03	1.09E+01	2.74E-10	4.48E-09	-02
Module A5		1.59E-07	3.52E-02	8.44E+00	8.80E-10	9.86E-09	1.28E+01
Module B1		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Module B2		3.80E-08	1.41E-02	1.30E+00	8.65E-10	1.70E-08	8.31E-01
Module B3		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Module B4		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Module B5		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Module B6		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Module B7		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Module C1		3.27E-08	1.88E-04	7.62E-01	6.80E-12	1.70E-10	3.02E-03
Module C2		1.34E-08	4.69E-04	1.31E+00	1.38E-11	1.53E-09	5.60E-03
Module C3		2.29E-07	7.94E-03	1.34E+00	2.45E-11	9.32E-10	1.70E+00
Module C4		7.83E-08	1.46E-04	5.67E-01	7.02E-12	2.65E-10	3.44E-01
Module D		-1.04E-08	-6.04E-05	-6.09E-02	-3.79E-12	-7.04E-11	-1.43E-01

LEGEND:

- Product stage
- Construction process stage
- Use stage
- End of life stage
- Benefits and loads beyond the system boundary

NOTES: Units expressed by functional unit ($1m^2$).

The impact indicator “potential human exposure efficiency relative to U235” focuses mainly on the possible impact of a low dose of ionising radiation on human health resulting from the nuclear fuel cycle. It does not consider effects arising from possible nuclear accidents, occupational exposure or the disposal of radioactive waste in underground facilities. Potential ionising radiation from soil, radon and some building materials is also not measured by this indicator.

The results of the indicators “potential comparative toxic unit for ecosystems (ETP-FW)”, “potential comparative toxic unit for humans, cancer effects”, “potential comparative toxic unit for humans, not cancer effects” and “potential soil quality index” should be used with caution as the uncertainties associated with them are high or there is little experience with the indicator.

2.4. Indicators describing resource use

		Primary energy					
		EPR	RR	TRR	EPNR	RNR	TRNR
Unit		MJ, P.C.I.	MJ, P.C.I.	MJ, P.C.I.	MJ, P.C.I.	MJ, P.C.I.	MJ, P.C.I.
Modules A1-A3		6.25E+01	3.90E-03	6.25E+01	3.65E+02	7.02E-05	3.65E+02
Module A4	Scenario A4.1	2.09E-02	0.00E+00	2.09E-02	1.51E+01	0.00E+00	1.51E+01
	Scenario A4.2	1.16E-01	0.00E+00	1.16E-01	8.39E+01	0.00E+00	8.39E+01
	Scenario A4.3	2.87E-02	0.00E+00	2.87E-02	2.33E+01	0.00E+00	2.33E+01
Module A5		2.64E+00	2.19E-01	2.86E+00	1.49E+01	0.00E+00	1.49E+01
Module B1		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Module B2		4.37E-01	0.00E+00	4.37E-01	2.06E+01	0.00E+00	2.06E+01
Module B3		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Module B4		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Module B5		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Module B6		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Module B7		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Module C1		2.45E-03	0.00E+00	2.45E-03	1.64E+00	0.00E+00	1.64E+00
Module C2		4.18E-03	0.00E+00	4.18E-03	3.02E+00	0.00E+00	3.02E+00
Module C3		1.00E-01	0.00E+00	1.00E-01	3.43E+00	0.00E+00	3.43E+00
Module C4		1.75E-02	0.00E+00	1.75E-02	1.09E+00	0.00E+00	1.09E+00
Module D		-9.39E-03	0.00E+00	-9.39E-03	-4.41E-01	0.00E+00	-4.41E-01

LEGEND:

- Product stage
- Construction process stage
- Use stage
- End of life stage
- Benefits and loads beyond the system boundary

EPR = use of renewable primary energy excluding renewable primary energy resources used as raw materials; RR = use of renewable primary energy resources used as raw materials; TRR = total use of renewable primary energy resources (EPR + RR); EPNR = use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials; RNR = use of non-renewable primary energy resources used as raw materials; TRNR = total use of non-renewable primary energy resources (EPRN + RNR);

NOTE: Units expressed by functional unit ($1m^2$).

		Secondary materials and fuels, and use of water			
		MS	CSR	CSNR	Net use of fresh water
Unit		kg	MJ, P.C.I.	MJ, P.C.I.	m^3
Modules A1-A3		8.68E+00	0.00E+00	0.00E+00	4.17E-01
Module A4	Scenario A4.1	0.00E+00	0.00E+00	0.00E+00	6.34E-04
	Scenario A4.2	0.00E+00	0.00E+00	0.00E+00	1.19E-04
	Scenario A4.3	0.00E+00	0.00E+00	0.00E+00	5.30E-05
Module A5		0.00E+00	0.00E+00	0.00E+00	1.56E-02
Module B1		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Module B2		0.00E+00	0.00E+00	0.00E+00	2.69E-01
Module B3		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Module B4		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Module B5		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Module B6		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Module B7		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Module C1		0.00E+00	0.00E+00	0.00E+00	2.35E-05
Module C2		0.00E+00	0.00E+00	0.00E+00	4.27E-06
Module C3		0.00E+00	0.00E+00	0.00E+00	4.02E-04
Module C4		0.00E+00	0.00E+00	0.00E+00	4.52E-05
Module D		2.23E+01	0.00E+00	0.00E+00	0.00E+00

LEGEND:

- Product stage
- Construction process stage
- Use stage
- End of life stage
- Benefits and loads beyond the system boundary

MS = use of secondary material; CSR = use of renewable secondary fuels; CSNR = use of non-renewable secondary fuels.

NOTE: Units expressed by functional unit ($1m^2$).

2.5. Other environmental information describing different waste categories

		Hazardous waste disposed	Non-hazardous waste disposed	Radioactive waste disposed
Unit		kg	kg	kg
Modules A1-A3		7.09E-03	8.59E-01	5.95E-04
Module A4	Scenario A4.1	3.76E-05	5.94E-04	1.03E-04
	Scenario A4.2	2.09E-04	3.30E-03	5.73E-04
	Scenario A4.3	1.29E-05	1.05E-03	1.59E-04
Module A5		2.17E-04	3.72E-01	4.03E-05
Module B1		0.00E+00	0.00E+00	0.00E+00
Module B2		9.78E-06	1.78E-02	1.54E-05
Module B3		0.00E+00	0.00E+00	0.00E+00
Module B4		0.00E+00	0.00E+00	0.00E+00
Module B5		0.00E+00	0.00E+00	0.00E+00
Module B6		0.00E+00	0.00E+00	0.00E+00
Module B7		0.00E+00	0.00E+00	0.00E+00
Module C1		0.00E+00	0.00E+00	0.00E+00
Module C2		7.53E-06	1.19E-04	2.06E-05
Module C3		5.84E-06	3.83E-04	3.01E-05
Module C4		2.68E-06	8.24E+00	7.44E-06
Module D		-2.75E-06	-4.11E-04	-3.53E-08

LEGEND:

- Product stage
- Construction process stage
- Use stage
- End of life stage
- Benefits and loads beyond the system boundary

NOTE: Units expressed by functional units (1m²).

The characteristics that make the waste hazardous are described in the applicable legislation in force, such as the European Waste Framework Directive.

2.6. Environmental information describing output flows

		Components for re-use	Materials for recycling	Materials for energy recovery	Exported energy
Unit		kg	kg	kg	MJ
Modules A1-A3		0.00E+00	1.67E+01	2.12E-02	2.99E-01
Module A4	Scenario A4.1	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Scenario A4.2	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Scenario A4.3	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Module A5		0.00E+00	1.05E+00	3.27E-01	3.16E+00
Module B1		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Module B2		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Module B3		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Module B4		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Module B5		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Module B6		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Module B7		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Module C1		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Module C2		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Module C3		0.00E+00	2.48E+01	0.00E+00	0.00E+00
Module C4		0.00E+00	0.00E+00	0.00E+00	0.00E+00
Module D		0.00E+00	0.00E+00	0.00E+00	0.00E+00

LEGEND:

- Product stage
- Construction process stage
- Use stage
- End of life stage
- Benefits and loads beyond the system boundary

NOTE: Units expressed by functional units (1 m^2).

The characteristics that make the waste hazardous are described in the applicable legislation in force, such as the European Waste Framework Directive.

2.7. Information describing the biogenic carbon content at the factory gate

Biogenic carbon content*	Units**	Modules A1-A3 (results)
Biogenic carbon content in product	kg C	-
Biogenic carbon content in accompanying packaging	kg C	6.05E-01

* 1 kg biogenic carbon is equivalent to 44/12 kg of C02.

** This information can be omitted whenever the content of biogenic carbon in the product, or in the respective packaging, is less than 5% of the mass of the product, or the respective packaging.

3. SCENARIOS AND ADDITIONAL TECHNICAL INFORMATION

Global warming potential for commercial products

Based on the technical properties of the product, all environmental impact indicators can be quantified for the typical thicknesses of products in the market. The following results present the GWP indicator for each standard thickness of compact marble, based on an average density of 2475 kg/m^3.

		Global warming potential - total;					
		GWP-total – 12mm	GWP-total – 20mm	GWP-total – 25mm	GWP-total – 30mm	GWP-total – 42mm	GWP-total – 52mm
Unit		kg CO_2 eq.	kg CO_2 eq.	kg CO_2 eq.	kg CO_2 eq.	kg CO_2 eq.	kg CO_2 eq.
Modules A1-A3		1.75E+01	2.92E+01	3.66E+01	4.39E+01	6.14E+01	7.60E+01
Module A4	Scenario A4.1	1.39E-03	2.32E-03	2.91E-03	3.49E-03	4.88E-03	6.04E-03
	Scenario A4.2	7.75E-03	1.29E-02	1.62E-02	1.94E-02	2.71E-02	3.36E-02
	Scenario A4.3	5.80E-02	9.66E-02	1.21E-01	1.45E-01	2.03E-01	2.51E-01
Module A5		4.27E-03	5.93E-03	6.97E-03	8.00E-03	1.05E-02	1.26E-02
Module B1		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Module B2		4.07E-03	4.07E-03	4.07E-03	4.07E-03	4.07E-03	4.07E-03
Module B3		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Module B4		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Module B5		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Module B6		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Module B7		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Module C1		1.16E-03	1.93E-03	2.42E-03	2.90E-03	4.06E-03	5.03E-03
Module C2		2.79E-04	4.65E-04	5.81E-04	6.97E-04	9.76E-04	1.21E-03
Module C3		1.86E-03	2.98E-03	3.68E-03	4.37E-03	6.05E-03	7.45E-03
Module C4		6.45E-04	1.03E-03	1.27E-03	1.51E-03	2.10E-03	2.58E-03
Module D		-6.83E-04	-1.14E-03	-1.42E-03	-1.71E-03	-2.39E-03	-2.96E-03

LEGEND:

- Product stage
- Construction process stage
- Use stage
- End of life stage
- Benefits and loads beyond the system boundary

NOTES: Units expressed by functional unit (1 m²).

3.1. Module A4 Transport to the building site – Construction process stage

Destination	Type of transport	Average distance (km)
National	Truck with a capacity of 25 tons	250
Europe	Truck with a capacity of 25 tons	1390
International (Outside Europe)	Transoceanic cargo ship	6 520

3.2. Module A5 Installation of the product in the building – Construction process stage

Parameter	Units*/comments	Results expressed per functional unit
		Scenario A5
Scenario	Name and description of the scenario	N/A
Related scenario	Name of the scenarios linked to this scenario	N/A
Ancillary materials for installation (specified by material)	kg or other units as appropriate	3.3 of cement
Water use	m^3	N/A
Other resource use	kg	N/A
Quantitative description of energy type (regional mix) and consumption during the installation process	kWh or MJ	N/A
Waste of materials on the building site before waste processing, generated by the product's installation (specified by type)	kg	2-3%
Output materials (specified by type) as result of waste processing at the building site e.g. of collection for recycling, for energy recovery, disposal (specified by route)	kg	Waste management process for packaging materials
Direct emissions to ambient air, soil and water	kg	N/A
* Expressed per functional unit.		

3.3. Module B1 - Use stage

The stages of use, repair, replacement, and rehabilitation are not necessary for compact marble.

3.4. Module B2 - Maintenance

The consumption of water and cleaning agents has been considered. The values declared at this stage are for a period of 50 years.

The scenario used for the maintenance of compact marble slabs/tiles was for residential use, with the use of 0.134 ml of detergent and 0.1 l of water to clean 1 m^2 of compact marble flooring once a week.

3.5. Module B3 - Repair

The stages of use, repair, replacement, and rehabilitation are not necessary for compact marble.

3.6. Module B4 – Replacement

The stages of use, repair, replacement, and rehabilitation are not necessary for compact marble.

3.7. Module B5 - Refurbishment

The stages of use, repair, replacement, and rehabilitation are not necessary for compact marble.

3.8. Module B6 - Energy usage (operational)

This module is not relevant for compact marble.

3.9. Module B7 - Water usage (operational)

This module is not relevant for compact marble.

3.10. Module C1 Demolition – End-of-Life Stage

A generic demolition process is assumed, involving the use of heavy equipment, as well as the generation of atmospheric emissions during this activity, according to the standard process in the ecoinvent 3.9.1 database.

3.11. Module C2 Transportation – End-of-Life Stage

The demolition waste from compact marble slabs is transported from the construction site to a container or treatment station by truck (25 tons), with an average distance of 50 km considered.

3.12. C3 Waste processing for reuse, recovery, and recycling – End-of-Life Stage

Destination	Result	Unit of measurement
Recycling (C3)	75	%

3.13. C4 Waste disposal – End-of-Life Stage

Destination	Result	Unit of measurement
Landfill (C4)	25	%

3.14. Scenarios and technical information for module D

It was considered that 75% of the waste generated at the end of the useful life of the compacted marble product (RMC) is recycled and subsequently used as a substitute for primary (virgin) inert materials. It was assumed that the recycled aggregates derived from the end-of-life RMC product have equivalent quality to virgin-source inert materials.

The accounting of the benefits associated with recycling was carried out in accordance with the Module D formula (D.3.4) of the EN 15804+A2:2019+AC standard, as specified for modelling flows and benefits in this module.

3.15. Additional environmental information regarding the release of hazardous substances into air, soil, and water during the use stage

These products do not contain dangerous substances listed in the candidate lists of the REACH Regulation above the threshold of 0.1% (declarative).

4. REFERENCES

✓ Instruções Gerais do Sistema DAPHabitat, Versão 3.0, june 2024 (em www.daphabitat.pt);

✓ RCP – modelo base para produtos e serviços de construção. Sistema DAPHabitat. Versão 3.0, june 2024 (em www.daphabitat.pt);

✓ NP ISO 14025:2009 Rótulos e declarações ambientais – Declarações ambientais Tipo III – Princípios e procedimentos;

✓ EN 15804:2012+A2:2019 Sustainability of construction works – Environmental product declarations – Core rules for the product category of construction products;

✓ EN 15942:2021 Sustainability of construction works – Environmental product declarations – Communication format business-to-business.

✓ NF EN 15804+A2/CN Contributions des ouvrages de construction au développement durable — Déclarations environnementales sur les produits — Règles régissant les catégories de produits de construction — Complément national à la NF EN 15804+A2.

✓ Regras para a Categoria de Produto (RCP) – Revestimento de Paredes. RCP002:2014. Sistema DAPHabitat. Versão 1.2, Junho 2022 (em www.daphabitat.pt);

✓ Regras para a Categoria de Produto (RCP) – Revestimento de Pavimento. RCP001:2014. Sistema DAPHabitat. Versão 1.2, Junho 2022 (em www.daphabitat.pt).