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AENOR

MORATONAS, S.L.
Ornamental Marble Limestone

Environmental
Product
Declaration

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MORATONAS

MÁRMOLES
HERMANOS MORATONAS S.L

The holder of this Declaration is responsible for its content, as well as for maintaining, during the validity period, the supporting documentation that justifies the data and claims included.

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1. General information

1.1. The organization

MÁRMOLES HERMANOS MORATONAS S.L., hereinafter referred to as *Moratonas*, is the holder of the Environmental Product Declaration (EPD) developed in this document.

Moratonas is a company founded in 1991, dedicated to the extraction, processing, and commercialization of ornamental stone. Its main supply comes from several company-owned quarries, primarily from the one located in Sant Vicente de Castellet, in the province of Barcelona. The subsequent processing, cutting, and finishing are carried out a few kilometers away at the Castellgalí factory. The supplied products can be sold as slabs or custom-cut pieces for flooring and cladding applications, both indoors and outdoors (floors, walls, façades, stairs), as well as for bathrooms, kitchens, urban elements, and decorative purposes. They are available in various finishes: rough, flamed, aged, bush-hammered, sandblasted, polished, among others, and in different thicknesses according to the client's requirements.

The high quality of the stone and the company's specialization have enabled most of the finished products to be marketed outside of Spain, becoming an international benchmark, exporting throughout Europe, as well as to the USA, Canada, Australia, Korea, China, and the Middle East, among other regions. The international expansion of its products has been driven by participation in national trade fairs such as CEVISAMA, international fairs like MARMOMAC, exhibitions at construction industry events (e.g., CONSTRUMAT), and its extensive sales network.

Moratonas operates three company-owned quarries that supply the manufacturing facility. This facility is equipped with the most advanced cutting and finishing equipment to produce high-quality ornamental stone products.

The product analyzed in this EPD comes from a single quarry—San Vicente (concession 4315-1 in the Mining Register).

The company has 25 employees distributed across its various facilities. Moratonas has an annual production capacity of approximately 3,500 m³.

1.2. Scope of the Declaration

This Environmental Product Declaration provides detailed environmental information concerning the life cycle of the natural stone San Vicente Moon Grey (internationally known as Moon Grey®), and its variants Girona Moon and Ros Moon. All of these products are extracted from the San Vicente quarry and processed at the Castellgalí plant, both owned by Moratonas. They possess identical physicochemical characteristics (the only difference is the stone's colour, which is reflected in the different trade names) and are treated using the same processes and techniques. Therefore, the product analyzed in this study is considered one, and includes all the mentioned stone types.

These products are marketed as ornamental stone for decorative and cladding purposes, for both indoor and outdoor construction use. The life cycle assessment (LCA) was conducted with a cradle-to-gate scope, including modules C1-C4 and D.

The EPD will be used for business-to-business (B2B) communication with the company's clients.

1.3 Life Cycle and Conformity

The EPD has been developed based on the standards ISO 14040, ISO 14044, and UNE-EN 15804:2012 +A2:2020 / AC:2021.

Table 1.1 Product Category Rules

PRODUCT CATEGORY RULES INFORMATION	
Descriptive Title	Sustainability in construction. Environmental Product Declarations. Core rules for the product category of construction products.
Registration Code and Version	UNE-EN 15804:2012+A2:2020 /AC:2021
Date of Issue	2021
Program Operator	AENOR

This Environmental Product Declaration includes the following life cycle stages:

Table 1.2 System Boundaries – Considered Information Modules

Product Stage	A1	Raw material supply	X
	A2	Transport to manufacturing	X
	A3	Manufacturing	X
Construction Stage	A4	Transport to site	MNE
	A5	Installation / construction	MNE
Use Stage	B1	Use	MNE
	B2	Maintenance	MNE
	B3	Repair	MNE
	B4	Replacement	MNE
	B5	Refurbishment	MNE
	B6	Operational energy use	MNE
	B7	Operational water use	MNE
End-of-Life Stage	C1	Deconstruction / demolition	X
	C2	Transport	X
	C3	Waste processing	X
	C4	Disposal	X
	D	Reuse, recovery, and/or recycling potential	X
X = Module included in the LCA, NR = Module not relevant, MNE = Module not evaluated			

The modules included in the life cycle are detailed below:

- Production of raw materials (A1).
- Transport to manufacturing site (A2).
- Manufacturing (A3).
- Demolition or deconstruction (C1).
- Transport to waste treatment (C2)
- Waste treatment for recycling or reuse (C3).
- Landfill disposal (C4)
- Module D. Benefits and loads beyond the system boundary.

Excluded from the LCA:

- Product transport to the customer.
- Installation/construction and use phases.
- Equipment with a useful life greater than 3 years, construction of plant buildings, and capital goods.
- Employee commuting and business travel
- Research and development activities.

This EPD may not be comparable with those developed under other programs or based on different reference documents particularly with EPDs not developed according to the UNE-EN 15804+A2 standard.

Likewise, EPDs may not be comparable if they are based on different data sources (e.g., databases), use different functional units, omit relevant information modules, or rely on different scenarios.

The comparison of construction products must be based on the same function, using the same functional unit, and at the building level (or architectural/engineering work), meaning it must include the product's performance throughout its entire life cycle, as well as comply with the requirements in section 6.7.2 of the UNE-EN ISO 14025 standard.

2. The product

2.1 Product identification

The study focuses on three commercial products: San Vicente Moon Grey (internationally known as Moon Grey®), and its variants Girona Moon and Ros Moon. All products are extracted from the same quarry using the same methods and exhibit identical characteristics.

The three product types differ only in the stone's color, with San Vicente Moon Grey, a grey stone, being the most common. For this reason, the products are considered equivalent at the EPD level and can be analyzed collectively.

2.2 Product composition

San Vicente Moon Grey (Moon Grey®) is a grain-supported limestone from the Upper Bartonian, with a micritic matrix and the presence of foraminifera (Nummulites and Discocyclina).

It has a detrital-textured grey color, with the following mineralogical composition:

- Calcite – Micrite 40%.
- Quartz 40%.
- Bioclasts 15%
- Sparite 5%.

The final products can have different thicknesses according to client needs.

2.3 Intended Use of the Product

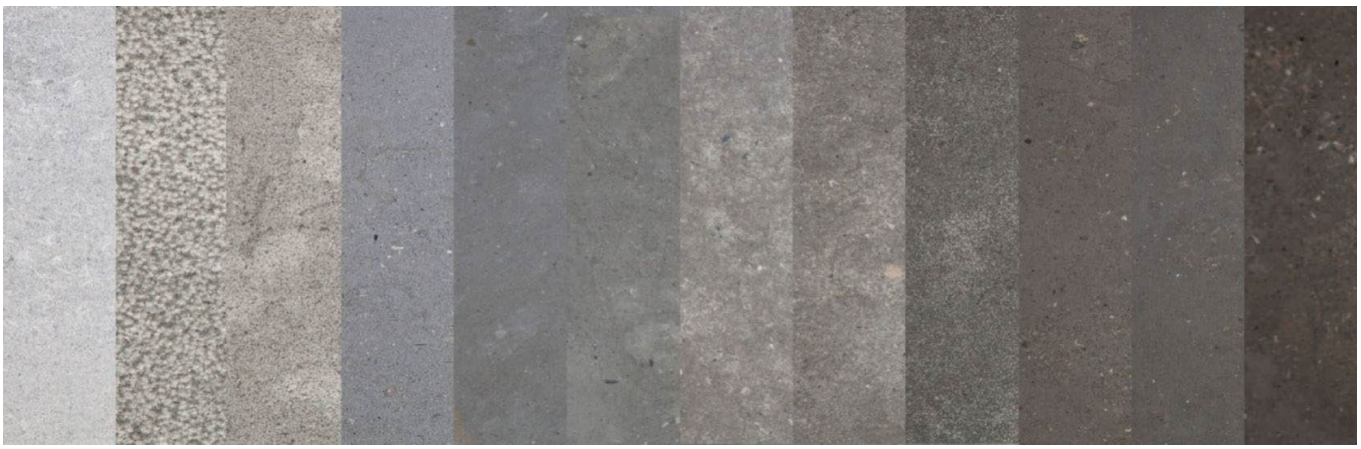
The product is intended for flooring and cladding, both interior and exterior (floors, walls, façades, stairs, or other elements), as well as bathrooms, kitchens, urban elements, and decorative features.

The final products can come in various finishes, such as: rough, flamed, aged, bush-hammered, sandblasted, polished and others,

Kitchens and Bathrooms – San Vicente Moon Grey

San Vicente stone slabs - Moon Grey

Finishes – San Vicente Moon Grey (Moon Grey®)



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2.4 Product Performance

The table below presents the technical characteristics of the product in its three variants. As shown, all three types exhibit the same technical properties, and therefore can be considered equivalent.

Table 2.1 Technical specification of the Product

TECHNICAL SPECIFICATION	SANT VICENTE - MOON GREY	GIRONA MOON- SANT VICENÇ RAIG	ROS MOON
Commercial name	Sant Vicenç Moon Grey	Girona Moon- Sant Vicenç Raig (Pedra Girona type)	Ros Moon
Petrographic Analysis			
Color	Grey	Grey-Brown (Bicolor)	Beig - brown
Texture	Detritic	Detritic	Detritic
Mineral Composition	CALCITE - CARBONATED CIMENT (MICRITRA) 40 % - QUARTZ 40 % - BIOCLAST 15% - ESPARITA 5 %	CALCITE - CARBONATED CIMENT (MICRITRA) 40 % - QUARTZ 40 % - BIOCLAST 15% - ESPARITA 5 %	CALCITE - CARBONATED CIMENT (MICRITRA) 40 % - QUARTZ 40 % - BIOCLAST 15% - ESPARITA 5 %
Clasification	Detrital Quartzite Calcite	Detrital Quartzite Calcite	Detrital Quartzite Calcite
• Bulk Density (UNE-EN 1936: 2007)	2,69 g/cm3	2,69 g/cm3	2,69 g/cm3
• Open Porosity (UNE-EN 1936-2007)	0,53%	0,53%	0,53%
• Water Absorption (UNE-EN 1341:2002)Erratum 2004	0,20%	0,20%	0,20%
• Abrasion Resistance (UNE-EN 1341:2002)	16,4 mm	16,4 mm	16,4 mm
• Wear Resistance(UNE- EN 1341:02)	17,7 mm	17,7 mm	17,7 mm
• Skid Resistance (UNE -EN 14231:04)	Aserrada: USRV = 80	Aserrada: USRV = 80	Aserrada: USRV = 80
• Compressive Strength (UNE-EN 1926:2007)	184 Mpa	184 Mpa	184 Mpa
• Flexural Strengh (UNE-EN 12372:2007)	17,9 N/mm2	17,9 N/mm2	17,9 N/mm2
• Resistance to freezing and thawing (UNE-EN 12371:2011) (after 240 cycles)	no altera, perdida de masa 0,0 %	no altera, perdida de masa 0,0 %	no altera, perdida de masa 0,0 %
• Flexural Strenfht after freeze-defreeze (UNE-EN 12372) (after freezing and thawing)	14,5 Mpa, variación 1,01 %	14,5 Mpa, variación 1,01 %	14,5 Mpa, variación 1,01 %
• Resistance to Salt Crystallisation (UNE-EN 12370:99)	Perdida de masa - 0,51 %	Perdida de masa - 0,51 %	Perdida de masa - 0,51 %
• Breaking load for anchors (UNE EN 13364:02)	4.050 N	4.050 N	4.050 N

3. Life Cycle Assessment (LCA) Information

3.1 Life Cycle Analysis

The LCA report was conducted by researchers from the Mining Department of the Polytechnic University of Catalonia, based on data provided by Moratonas. This includes data on the extraction process of the blocks from the quarry, their transport to the factory, and subsequent processing into the slabs described in section 2.

The LCA was carried out using production and consumption data from the year 2023. In specific cases where this data was less representative, the average data from the last 5 years was used to obtain the most representative results possible.

3.2 Scope of the Study

A cradle-to-gate scope has been defined, including modules C1–C4 and D. The life cycle includes the phases of raw material extraction, transport, product manufacturing, and end-of-life.

The data was entered and processed using SimaPro software, PhD version 9.6.0.1 for the determination of impacts, with the EcoInvent 3.10 database. This study follows the prescriptions of the following standards: ISO 14040:2006 and ISO 14044:2006; the product category rules for construction products, UNE-EN 15804; and the Type III environmental labelling standard, UNE-EN ISO 14025.

For the impact assessment, various calculation methods were used: the “EN 15804 + A2 (adapted) V1.01” method, “Cumulative Energy Demand (LHV) V1.01”, “EDIP 2003 V1.07”, “ReCiPe 2016 Midpoint (E) V1.09”, and inventory data.

3.3 Declared Unit

The declared unit is 1 tonnne of processed natural stone in slab form. For calculations, an average stone density of 2.69 tons/m³ was used.

3.4 Allocation Rule

Allocation was performed using an economic approach for three by-products and a mass-based approach by-product, depending on the specific process.

The production of the product generates four by-products:

- Unprocessed stone blocks sold directly from the quarry (mass-based allocation)
- Quarry by-product: smaller stone pieces used by third parties to create smaller components (economic allocation)
- Factory by-product: offcuts from slab cutting, too small to form a complete product, converted into a lower-grade by-product (economic allocation)
- Scrap metal, rebar, and other valuable sub-products (economic allocation)

3.5 Cut-off Criteria

In accordance with the reference standard, the LCA includes the gross weight/volume of all materials used in the manufacturing process, ensuring that at least 99% of the product unit weight is accounted for. No raw material or energy inputs were excluded.

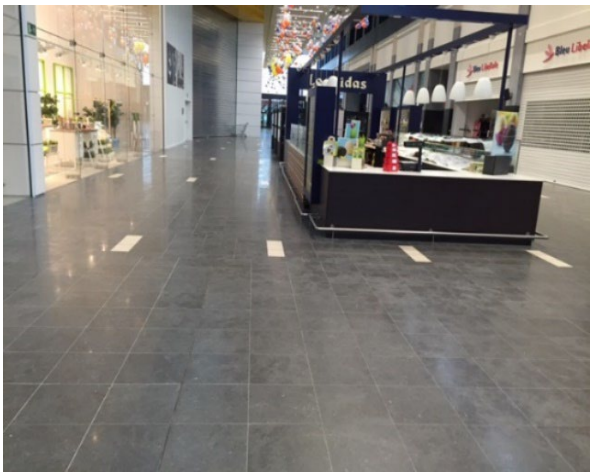
3.6 Representativeness, Data Quality, and Data Selection

Specific primary data from the quarry and factory for the year 2023 was used for.

- Consumption of raw and auxiliary materials.
- Energy consumption.
- Air emissions.
- Wastewater.
- Waste generation.

In specific cases where the data is less representative, the average data from the past five years was used (for example, values related to consumables such as oil and grease in the manufacturing phase, cutting wires, and diamond blades).

Additionally, whenever possible, country-specific data from the location where the process is carried out (Spain) was used—such as in the case of electricity consumption.



When this was not possible, regional or global data was used instead (for example, in datasets related to materials, production processes, or modes of transport, selected as European data).

The data quality analysis, conducted in accordance with Annex E of the UNE-EN 15804+A2 standard, considers the following criteria:

- Geographical representativeness (Very good – Good)
- Technical representativeness (Very good – Good – Sufficient)
- Temporal representativeness (Very good)

Therefore, the overall data quality is considered good and consistent with actual processes.

Flooring – San Vicente Moon Grey

4 System Boundaries, Scenarios, and Technical Information.

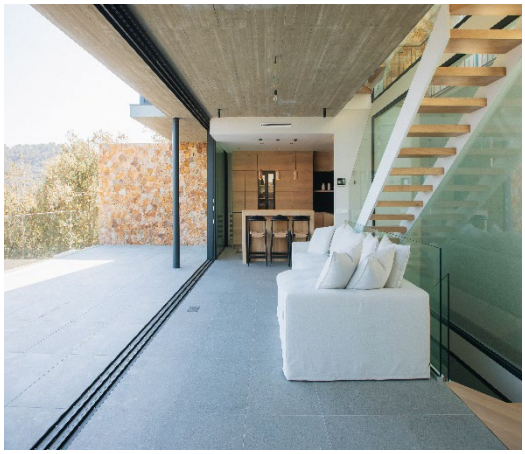
The processes included in the system, as mentioned in section 1.2 of the EPD, as well as the boundaries of the system, are detailed below. The included modules and their corresponding phases are graphically represented in Figures 2 and 3.

The product system studied in the Life Cycle Assessment (LCA) of the Moratonas stone product is "cradle-to-gate" with the inclusion of modules C1-C4 and D. The following production phases have been analyzed:

Module A1: Raw Material Production

The stone is extracted in parallelepiped blocks from the quarry, after several diamond wire cutting phases to obtain a regular shape and a suitable size of 20 tons for transportation to the factory.

This module considers the production process of the materials and consumables used in the extraction and cutting phases of the stone at the quarry, their transportation to the quarry, and the energy used in all these operations.



San Vicente Flooring - Moon Grey

Module A2: Transportation

The blocks are transported from the quarry to the factory, located 8.5 km away, using trucks with a capacity of 16–32 tons.

Module A3: Manufacturing

This module includes the transformation process of the blocks into a sellable product, which follows this process:

3.1. Cutting the blocks using a multi-wire.

3.2. Surface finishing process of the product (slabs).

3.3. Cutting the stone slabs into sellable tiles.

3.4. Packaging of the stone product, depending on size and destination, using racks, bundles, or pallets.

3.5 Waste management during the manufacturing phase.

The production of auxiliary materials such as glazes, maintenance solvents, lubricants, and other cutting elements is also considered. Transportation of all materials used to the factory is also taken into account.

Moratonas has a photovoltaic panel installation capable of producing an amount of energy equivalent to 80% of total consumption. In this regard, the direct self-consumption of the electricity generated by the photovoltaic system accounts for 45% of the annual consumption in the manufacturing process.

Module C1 – Deconstruction / demolition

In the LCA, the deconstruction module (C1) is not considered relevant for the quantitative analysis. The material and energy consumption for the deconstruction and removal of Moratonas products is included within the framework of the building or civil works of which they are a part.

Module C2: Transport to Waste Treatment/Recovery Site

At the end of its useful life, the studied product is assumed to be transported by road over an average distance of 50 km to the nearest waste management facility, using EURO5 trucks with a capacity of 16–32 tons.

Module C3: Waste treatment

70% of the product's weight is recycled as secondary material, being crushed and used as aggregate.

Module C4: Waste Disposal

30% of the material's weight is not reused and is sent for disposal (landfill).

Module D: Potential Benefits from Recycling

All the material sent for recycling at the end of the product's life has been considered. That is, 70% of the final product (as estimated in modules C3–C4) is recovered as secondary granular material. It is assumed that this secondary material can substitute raw materials such as crushed gravel for applications in the construction and infrastructure sectors (e.g., cement, asphalt), or for concrete products

Figure 1. System Bounduries

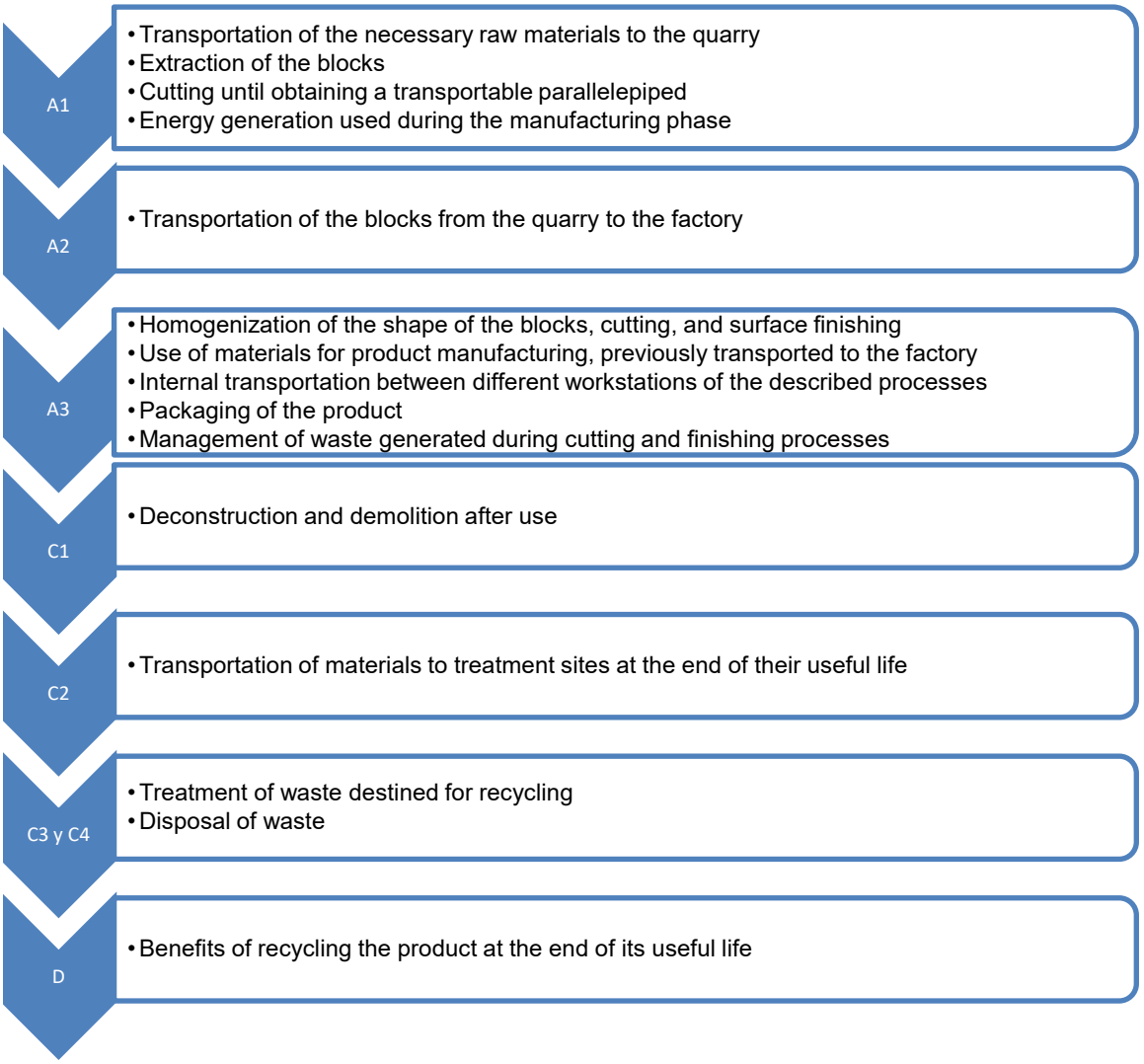
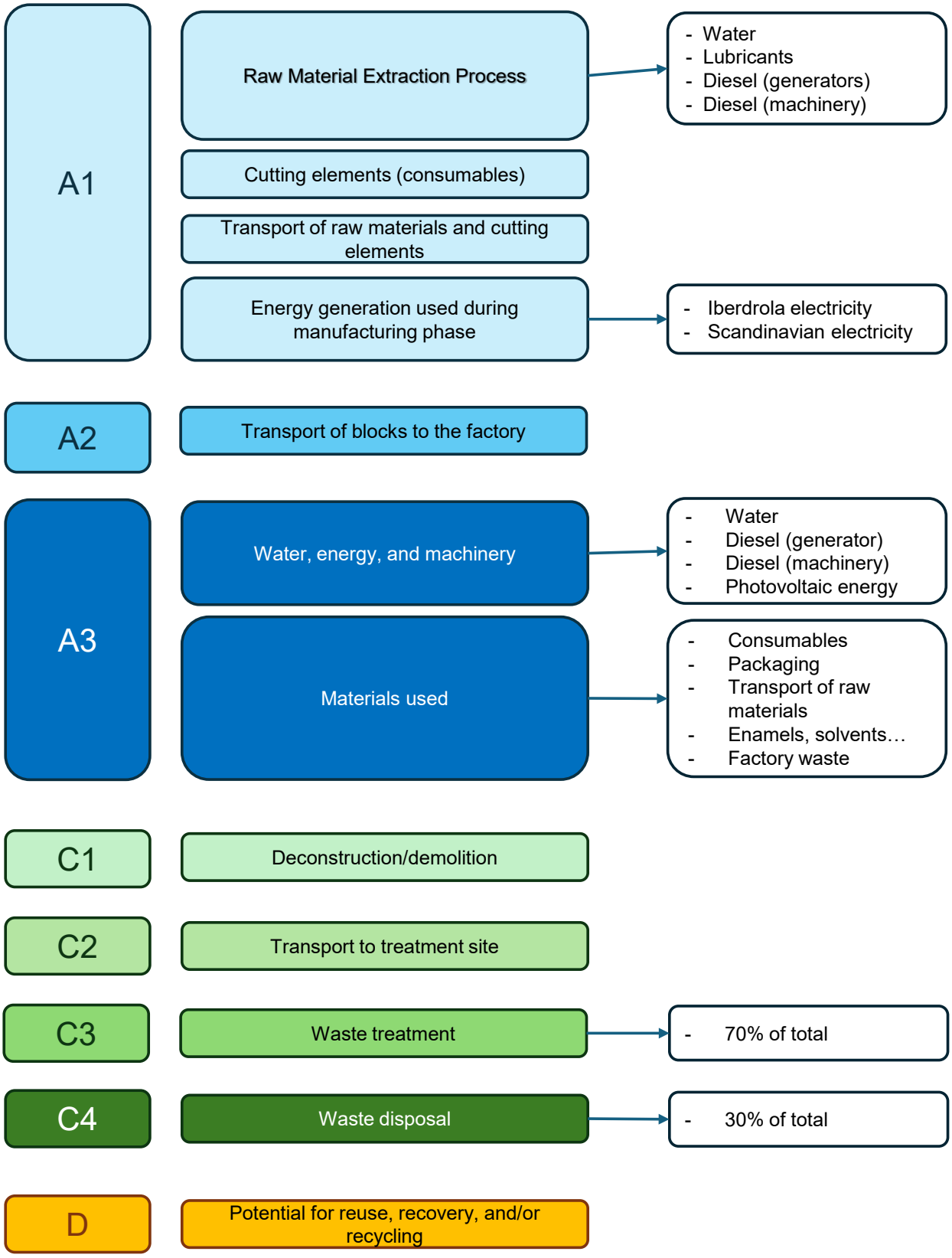


Figure 2. Process Modeling Diagram



5. Declaration of the Environmental Parameters of the LCA and LCI.

Below are the results obtained for the average stone product made of marble limestone from Moratonas.

The estimated impact results are relative and do not indicate the final value of the impact categories, nor do they refer to threshold values, safety margins, or risks.

Table 5-1. Environmental Impact Parameters Defined in the UNE-EN 15804 Standard per Declared Unit (1 ton)

Impact Category	Unit (per declared unit)	Value (per declared unit)								
		A1	A2	A3	A1-A3	C1	C2	C3	C4	D
GWP - total	kg CO2 eq	3,91E+01	2,06E+00	4,74E+01	8,86E+01	0,00E+00	7,77E+00	1,72E-01	7,85E-01	-2,87E+00
GWP - fossil	kg CO2 eq	3,88E+01	2,06E+00	5,43E+01	9,52E+01	0,00E+00	7,77E+00	1,65E-01	7,83E-01	-2,81E+00
GWP - biogenic	kg CO2 eq	2,43E-01	6,80E-04	-6,93E+00	-6,68E+00	0,00E+00	2,54E-03	6,30E-03	2,24E-03	-5,94E-02
GWP - luluc	kg CO2 eq	3,43E-02	5,10E-05	2,31E-02	5,75E-02	0,00E+00	1,91E-04	4,94E-04	4,10E-5	2,24E-04
ODP	kg CFC11 eq	6,13E-07	4,24E-08	1,07E-06	1,72E-06	0,00E+00	1,58E-7	2,53E-9	1,24E-8	-5,27E-08
AP	mol H+ eq	3,20E-01	1,12E-02	4,38E-01	7,69E-01	0,00E+00	1,93E-02	8,04E-04	7,17E-03	-1,61E-02
EP-freshwater	kg P eq	5,26E-04	1,74E-06	6,33E-04	1,16E-03	0,00E+00	6,51E-6	1,55E-5	9,83E-7	5,79E-6
EP-marine	kg N eq	1,30E-01	5,13E-03	1,93E-01	3,28E-01	0,00E+00	7,41E-03	1,08E-04	3,36E-03	-7,46E-03
EP-terrestrial	mol N es	1,44E+00	5,62E-02	2,11E+00	3,60E+00	0,00E+00	8,11E-02	1,22E-03	3,68E-02	-8,17E-02
POCP	kg NMVOC eq	4,28E-01	1,76E-02	6,52E-01	1,10E+00	0,00E+00	3,37E-02	4,14E-04	1,10E-02	-2,60E-02
ADP-minerals& metals [2]	kg Sb eq	5,71E-05	6,86E-08	1,49E-05	7,21E-05	0,00E+00	2,56E-7	1,23E-8	3,24E-8	-5,72E-07
ADP-fossil [2]	MJ	7,92E+02	2,74E+01	8,85E+02	1,70E+03	0,00E+00	1,02E+02	3,88E+00	1,03E+01	-4,28E+01
WDP [2]	m3	8,16E+00	1,17E-02	9,09E+00	1,73E+01	0,00E+00	4,35E-02	4,24E-02	8,18E-03	-3,56E-01

GWP GWP - total: Global warming potential; **GWP - fossil:** Global warming potential from fossil fuels; **GWP - biogenic**: Biogenic global warming potential; **GWP - luluc**: Global warming potential from land use and land use change; ODP: Stratospheric ozone depletion potential; **AP:** Acidification potential, accumulated surplus; **EP-freshwater:** Eutrophication potential, fraction of nutrients reaching the final freshwater compartment; **EP-marine:** Eutrophication potential, fraction of nutrients reaching the final marine water compartment; EP-terrestrial: Eutrophication potential, accumulated surplus**; POCP:** Tropospheric ozone formation potential; ADP-minerals&metals: Abiotic resource depletion potential for non-fossil resources; **APD-fossil:** Abiotic resource depletion potential for fossil resources; **WDP:** Water deprivation potential (user), weighted water deprivation consumption. **NR:** Not relevant

Note 1: The results for this environmental impact indicator should be used with caution, as uncertainties in the results are high and experience with this parameter is limited.

Table 5-2. Additional Environmental Impact Parameters Defined in the UNE-EN 15804 Standard, per Declared Unit (1 ton)

Impact Category	Unit (per declared unit)	Value (per declared unit)								
		A1	A2	A3	A1-A3	C1	C2	C3	C4	D
PM	disease inc.	4,22E-06	2,06E-07	6,62E-06	1,11E-05	0,00E+00	5,10E-7	2,73E-9	2,094E-7	-4,50E-07
IRP [1]	kBq U-235 eq	5,62E+00	3,74E-03	8,38E-01	6,47E+00	0,00E+00	1,40E-02	3,39E-02	1,36E-03	-1,55E-01
ETP-fw [2]	CTUe	8,88E+01	1,90E+00	2,53E+02	3,43E+02	0,00E+00	3,48E+00	5,95E-01	3,58E-01	-3,50E+00
HTP-c [2]	CTUh	4,24E-08	6,89E-10	2,85E-07	3,28E-07	0,00E+00	5,84E-10	9,83E-10	5,64E-11	-7,44E-09
HTP-nc [2]	CTUh	1,22E-07	1,98E-08	1,16E-07	2,58E-07	0,00E+00	5,12E-8	2,38E-09	8,66E-10	-1,52E-08
SQP [2]	Pt	9,46E+01	6,14E-02	8,57E+02	9,51E+02	0,00E+00	2,29E-01	5,48E-01	1,27E+01	-4,50E+01

P**M**: Potential incidence of diseases due to particulate matter (PM) emissions; **IRP**: Human exposure efficiency relative to U235; **ETP-fw**: Comparative toxic unit potential for ecosystems – freshwater; **HTP-c**: Comparative toxic unit potential for ecosystems – carcinogenic effects; **HTP-nc**: Comparative toxic unit potential for ecosystems – non-carcinogenic effects; **SQP**: Soil quality potential index.

Note 1: This impact category primarily addresses the potential effects of low-dose ionizing radiation on human health from the nuclear fuel cycle. It does not consider the effects of possible nuclear accidents or occupational exposure due to the disposal of radioactive waste in underground facilities. The ionizing radiation potential from soil, radon, or certain construction materials is also not measured by this parameter.

Note 2: The results of this environmental impact indicator should be used with caution, as the uncertainties in the results are high and experience with this parameter is limited.

Use of resources

Table 5-3 Parameters describing resource use per declared unit (1 ton)

Parameter	Unit (per declared unit)	Value (per declared unit)								
		A1	A2	A3	A1-A3	C1	C2	C3	C4	D
PERE	MJ	4,28E+01	9,53E-02	2,93E+02	3,36E+02	0,00E+00	3,56E-01	8,71E-01	2,46E-01	-1,05E+01
PERM	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
PERT	MJ	4,28E+01	9,53E-02	2,93E+02	3,36E+02	0,00E+00	3,56E-01	8,71E-01	2,46E-01	-1,05E+01
PENRE	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,02E+02	3,88E+00	1,03E+01	-4,28E+01
PENRM	MJ	7,92E+02	2,74E+01	8,85E+02	1,70E+03	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PENRT	MJ	7,92E+02	2,74E+01	8,85E+02	1,70E+03	0,00E+00	1,02E+02	3,88E+00	1,03E+01	-4,28E+01
SM	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
RSF	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
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	m3	1,88E-01	1,41E-04	8,86E-02	2,76E-01	0,00E+00	2,63E-03	3,16E-03	4,01E-04	-2,47E-01

PERE: Use of renewable primary energy excluding renewable primary energy resources used as raw materials; **PERM:** Use of renewable primary energy used as raw materials; **PERT**: Total use of renewable primary energy; **PENRE**: Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials; **PENRM**: Use of non-renewable primary energy used as raw materials; **PENRT**: Total use of non-renewable primary energy; **SM**: Use of secondary materials; **RSF**: Use of renewable secondary fuels; NRSF: Use of non-renewable secondary fuels; **FW**: Net use of fresh water resources; **NR**: Not relevant

Waste and output flows

Table 5-3 Parameters describing waste generation per declared unit (1 ton)

Parameter	Unit	Value (per declared unit)								
		A1	A2	A3	A1-A3	C1	C2	C3	C4	D
HWD	kg	5,44E-03	1,82E-04	5,72E-03	1,13E-02	0	6,79E-04	5,83E-6	7,03E-5	-2,53E-04
NHWD	kg	1,08E-01	8,36E-04	2,94E-01	4,02E-01	0	3,12E-03	2,31E-03	3,00E+02	-3,32E-03
RWD	kg	3,72E-03	2,58E-06	6,55E-04	4,38E-03	0	9,63E-6	2,75E-5	7,89E-7	-8,71E-05

HWD: Hazardous waste disposed; **NHWD**: Non-hazardous waste disposed; RWD: Radioactive waste disposed; **NR**: Not relevant

Table 55-4 Parameters describing output flows per declared unit (1 ton)

Parameter	Unit	Value (per declared unit)								
		A1	A2	A3	A1-A3	C1	C2	C3	C4	D
CRU	kg	0	0	0	0	0	0	0	0	0
MFR	kg	0	0	5,77E-01	5,77E-01	0	0	7,00E-01	0	0
MER	kg	0	0	0	0	0	0	0	0	0
EE	MJ	0	0	0	0	0	0	0	0	0

CRU: Components for reuse; **MFR**: Materials for recycling; **MER**: Materials for energy recovery; **EE**: Exported energy; **NR**: Not relevant

6. Environmental Information

6.1 Indoor Air Emissions.

The manufacturer declares that the Ornamental Marble Limestone products from Moratonas do not generate significant indoor air emissions during their service life.

6.2 Soil and Water Emissions.

The manufacturer declares that the Ornamental Marble Limestone products from Moratonas do not generate significant emissions to soil or water during their service life.

6.3 Biogenic Carbon Content

The manufacturer declares that the Ornamental Marble Limestone products from Moratonas do not contain materials with biogenic carbon in their composition.

The packaging containing biogenic carbon used for the distribution of the Ornamental Marble Limestone from Moratonas accounts for 0.38% of the total weight of the final product corresponding to the year 2023. Following the guidelines of the reference standard, the declaration of biogenic carbon content in the packaging is omitted because the mass of materials containing biogenic carbon in the packaging is less than 5% of the total product mass.

6.4 Other Declarations

The manufacturer declares that natural stone is considered an inert material, according to analyses carried out based on Decision 2003/33/EC.

6.5 Electricity Mix

The electricity mix has been calculated for the year 2023 based on data from the electricity suppliers' mix without GdO from the CNMC:

- Escandinava de Electricidad, S.L.U: 0,314 $kgCO_2$ eq/ kWh.
- IBERDROLA CLIENTES, S.A.U: 0,290 $kgCO_2$ eq/ kWh.

References

[1] ISO 14040:2006/A1:2021. Environmental management — Life cycle assessment — Principles and framework. (ISO 14040:2006/Amd 1:2020).

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[3] UNE-EN 15804:2012+A2:2020 Sustainability in construction Environmental product declarations Core rules for the product category of construction products.

[4] . General Instructions of the GlobalEPD Program, 3rd revision, 09-10 2023

[5] LCA Report of Ornamental Marble Limestone Production by Mármoles Hermanos Moratonas S.L. Version 03, 05/06/2025

[6] https://www.aenor.com/Producto_DAP_pdf/DAPNaturpiedra_GlobalEPD_EN15804-020.pdf

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