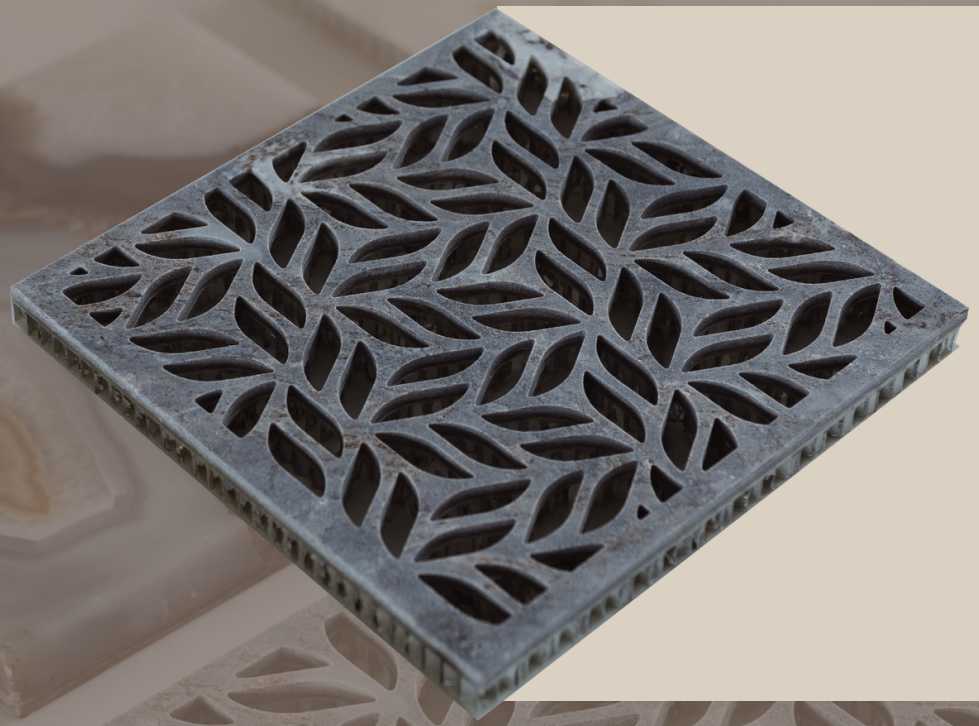
NC MARMI
MARBLE TECHNOLOGIES



Lightweight Marble 10+5

Environmental Product Declaration

EPD INTERNATIONAL EPD SYSTEM

ECO PLATFORM EPD VERIFIED

Programme EPD:	The International EPD® System, www.environdec.com
Programme operator:	EPD International AB
Reference GPI:	General Programme Instructions v5.0.1
Reference standard:	ISO 14025:2006 AND EN 15804:2012+A2:2019/AC2021
Reference PCR:	2019:14 v2.0.1
EPD registration number:	EPD-IES-0026650:001
Version date:	2025-11-04
Validity date:	2030-11-03

An EPD may be updated or depublished if conditions change. To find the latest version of the EPD and to confirm its validity, see www.environdec.com

General information

Programme information

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

PCR and verification

Product Category Rules (PCR)

CEN standard EN 15804 serve as the core Product Category Rules (PCR)
Product category rules (PCR): Lightweight Marble 10+5, EPD-IES-0026650:001, PCR 2019:14 Construction products, version 2.0.1, UN CPC è 151 “Monumental and building stone” - 151 20 “Marble and other calcareous monumental or building stone”
PCR review was conducted by: The Technical Committee of the International EPD® System. A full list of members is available on www.environdec.com. The review panel may be contacted via support@environdec.com.. Review chair: Rob Rouwette (chair), Noa Meron (co-chair).

Verification

External and independent (“third-party”) verification of the declaration and data, according to ISO 14025:2006, via EPD verification through: ☑Individual EPD verification without a pre-verified LCA/EPD tool Third-party verifier: Guido Croce Approved by: The International EPD System
Procedure for follow-up of data during EPD validity involves third-party verifier: □ Yes ☑No

Ownership and limitations on use of EPD

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

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

Information about the EPD owner

NC MARMI
MARBLE TECHNOLOGIES

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NC Marmi is an Italian company specialised in the **technological processing of marble and natural stones**. Born from experience and passion refined over time, it has become a benchmark in the field of stone design and material engineering, with a vision focused on innovation, research and sustainability.

Specialising in lightweight, heated, and backlit marble solutions, NC Marmi collaborates with architects, designers, and international shipyards to create custom interiors, furnishings, and surfaces for yachts, private jets, and luxury trains. Every project reflects the excellence of Made in Italy a perfect balance of aesthetics, functionality, and innovation.

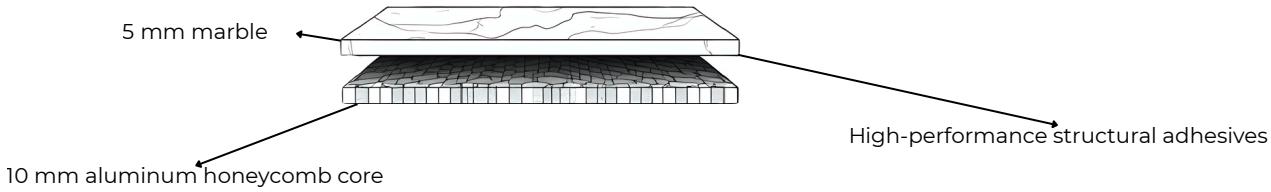
2B TO-BE.IT

The Life Cycle Assessment (LCA) study and this EPD were created by 2B Srl (www.to-be.it) in collaboration with NC Marmi di Cescutti Edi S.r.l.

Product information

Product description

The Lightweight Marble 10+5 system represents one of the most advanced structural configurations developed for high-end architectural and interior applications.



Natural beauty of stone + Mechanical performance = High mechanical integrity, long-term durability, and outstanding flatness tolerance, making it ideal for applications where both performance and aesthetics are critical.

The aluminum honeycomb core, derived from aerospace technology, ensures optimal rigidity and resistance while drastically reducing overall weight up to 70%, lighter than a conventional solid marble slab. This configuration improves bending strength, impact resistance, and dimensional stability, even in demanding environments subject to vibration, load, or temperature variation.

The Lightweight Marble 10+5 panel is suitable for a wide range of uses from marine interiors to architectural cladding, furniture design, and custom installations. Its technical configuration allows easy handling, installation, and integration into complex geometries without compromising the elegance or authenticity of the natural stone surface.

The 10+5 system embodies the perfect synthesis of engineering precision and Italian craftsmanship, redefining how marble can perform in contemporary design.

Main processes of manufacturing

The product consists of a marble slab glued to a honeycomb panel using an epoxy adhesive. The honeycomb panel is made up of two fibreglass skins impregnated with epoxy resin, separated by aluminum cells. The marble slab undergoes several processing steps to achieve the desired thickness.

Product feautures

The objective of this LCA is to assess the potential environmental impact of the life cycle of Lightweight Marble 10+5.

This LCA is conducted in accordance with ISO 14040/14044, PCR 2019:14 v2.0.1 “Construction products” [2], General Programme Instructions v5.0.1 [5] and the UNI EN 15804:2012+A2:2019/AC2021 E [1] standard.
Lightweight Marble 10+5 is produced by NC Marmi di Cescutti Edi S.r.l, located in the municipality of Aiello del Friuli (UD).

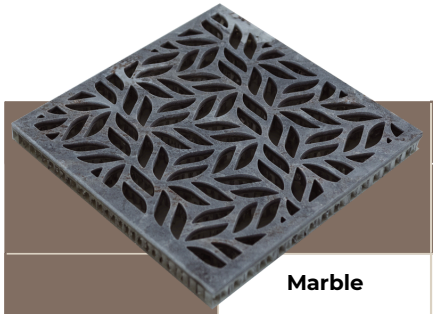
The UN CPC code is 151 “Monumental and building stone”, 151 20 “Marble and other calcareous monumental or building stone”.
The declared unit does not require the definition of reference service life (RSL) and the product lifespan is considered not applicable.

Content declaration

Content information

The product does not contain SVHC (Substance of Very High Concern) in concentrations above 0.1% (weight/weight). The list of substances is published by ECHA (European Chemicals Agency) and publicly available for consultation.

Depending on the characteristics of the marble, the product may undergo resin treatment to even out the surface.



		Declared unit: 1 m² of panel		Biogenic material
		Weight (kg)	%	Weight (kg C/m² and %)
Product	Marble	12.123	65.5%	0.000
	Aluminum	0.530	2.9%	0.000
	Resin-impregnated fibreglass	1.970	10.6%	0.000
	Epoxy resin	0.907	4.9%	0.000
	Total product	15.530	83.9%	0.000
1° packaging	Polyethylene	0.046	0.3%	0.000
	Polyurethane	0.143	0.8%	0.000
	Polystyrene	0.023	0.1%	0.000
	Total 1° packaging	0.212	1.2%	0.000
3° packaging	Wood	2.763	14.9%	1.355 - 49.0%
	Total 3° packaging	2.763	14.9%	1.355 - 49.0%
Total		18.505	100.0%	1.355 - 7.3%

Table 1 - Content information of Lightweight Marble 10+5

LCA information

LCA approach

The approach used in this LCA is attributional. The LCA attributional model represents the assessment of the actual, average or estimated supply chain of a product or process. The existing or estimated system is placed in a static technological context. The attributional approach is a type of modelling that requires environmentally relevant inputs and outputs for each process involved in the product life cycle to be attributed to the declared unit.

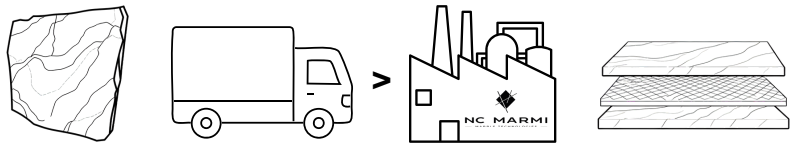
Declared unit

The declared unit is **1 m² of panel (including packaging)**. Particularly, the area density is 15.53 kg/m² and the thickness is 0.015 m.
The UN CPC code is 151 "Monumental and building stone", 151 20 "Marble and other calcareous monumental or building stone".
The declared unit does not require the definition of reference service life (RSL) and the product lifespan is considered not applicable.

System boundaries

The system boundaries of the study are "from cradle to gate with options, module C1-C4, module D and optional modules" (EPD type "b").
The **considered phases** in the study are the **acquisition of raw materials**, their **transport to the production site**, the **production stage**, **distribution**, **installation** and **end-of-life stage**. The **modules B1-B7 of use stage are omitted**, as it highly depends on the conditions under which the product is used. On the other hand, module D (Reuse-Recovery-Recycling potential stage) is considered in this study.

A1-A4



Product stage

Extraction of natural resources, production of raw materials used in products and packaging, energy consumption of production, transportation of raw materials and packaging to production plant, production operation, water consumption, waste production and disposal.

A4-A5



Construction process stage

Distribution and installation of product.

C1-C4



End-of-life stage

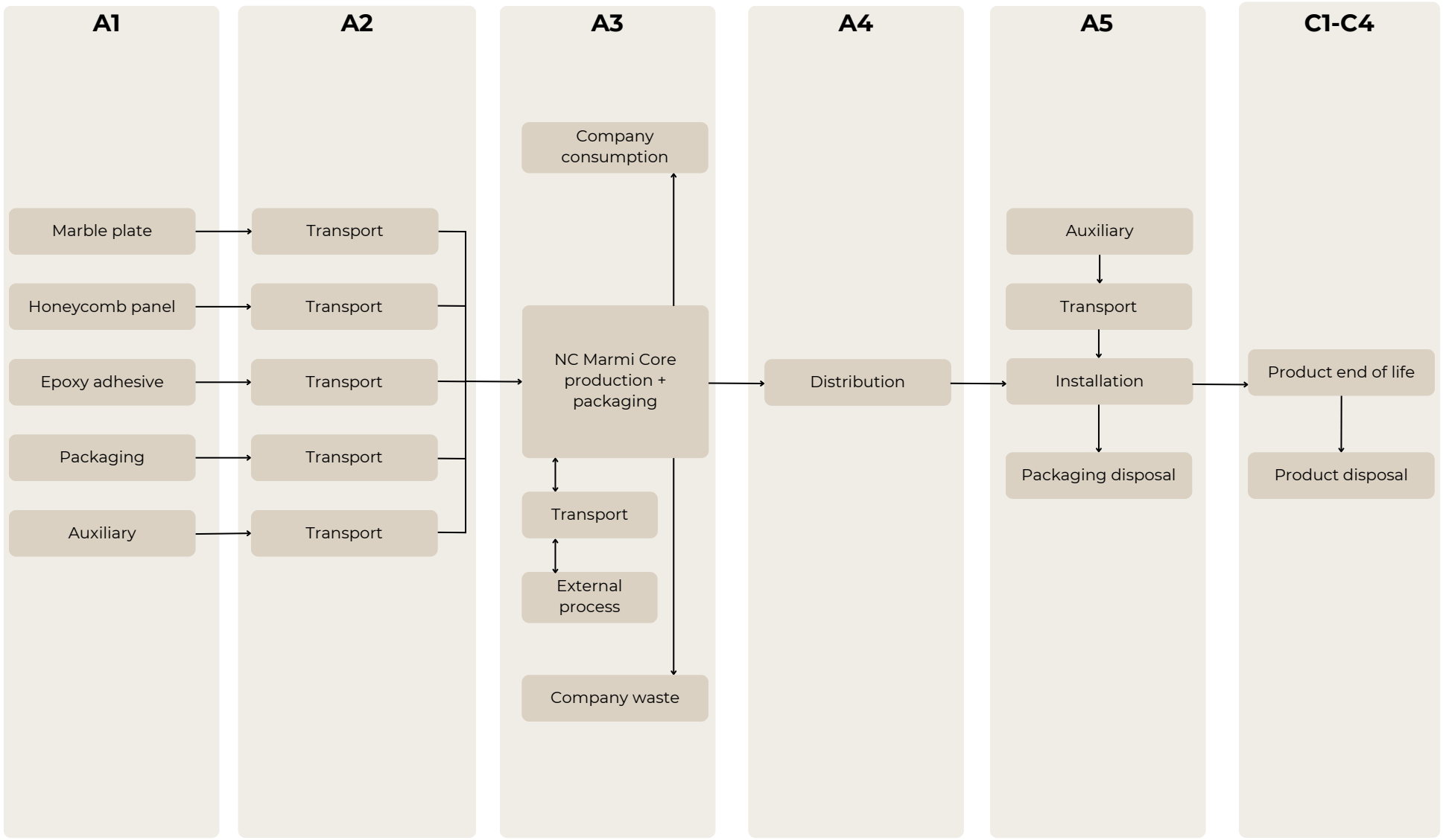
Product disposal.

System boundaries

	Product stage			Construction process stage		Use stage							End of life stage				Resource recovery stage
	Raw material supply	Transport	Manufacturing	Transport	Construction installation	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction demolition	Transport	Waste processing	Disposal	Reuse-Recovery-Recycling-potential
Module	A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Modules declared	x	x	x	x	x	ND	ND	ND	ND	ND	ND	ND	x	x	x	x	x
Geography	GLO	IT	IT	IT	IT	-	-	-	-	-	-	-	GLO	GLO	GLO	GLO	GLO

Table 2 - Life cycle modules of Lightweight Marble 10+5 panel

Process flow diagram



Data quality

The study uses primary data on raw materials, packaging, production processes and consumption, distribution and installation.
For the other processes, representative secondary data are used, sourcing in particular on the LCA database ecoinvent v3.11 [4], literature data [6][7][8] and the Eurostat database [9].
Finally proxy data are used for a minor contribution on the main impact categories analysed in the study.

The data collection phase is carried out by NC Marmi di Cescutti Edi S.r.l using a specific questionnaire created by 2B S.r.l., and by sharing technical and safety datasheets for raw materials. In addition, some data and clarifications are provided through documents and email correspondence. Prior to completing the questionnaire, meetings are held to thoroughly discuss the required data and ensure data accuracy through a review process.

Data quality is assessed using the pedigree matrix for processes contributing more than 2% to the main LCIA categories, and through qualitative analysis for all other processes. A sensitivity analysis of the proxy data is performed, confirming that their impact on the main impact categories is less than 10%.
The total share of primary data for the GWP-GHG indicator in modules A1–A3 is 34.54%.

Temporal representativeness

Primary data are provided by NC Marmi and they refer to the year 2023. Secondary data are sourced from the ecoinvent database v3.11 [4] – published in 2025 – and from 2002-2019 literature data and Eurostat database 2022 [6].

Geographical representativeness

NC Marmi production site, in which Lightweight Marble 10+5 is produced, is located in the municipality of Aiello del Friuli (UD). Raw materials come from Italy and the marble from all over the world.

Life cycle boundaries

In accordance with the PCR 2019:14 v2.0.1, it is assumed that company assets – e.g. the plant's machinery, the work of the factory's employees, and the buildings of the NC Marmi – do not contribute significantly to the product's life cycle assessment and are therefore not considered in the analysis. The contribution of infrastructure is not excluded from the processes that originally contained it, such as the secondary processes of the ecoinvent database.

The period for which the inputs and outputs from the product system is accounted is 100 years from the year that the LCA model best represents, considering the representativeness of the inventory data.

Uptake and emissions of biogenic carbon are assessed both as total Global Warming Potential (GWP) (including GWP-fossil, GWP-biogenic and GWP-land transformation) and reported separately as GWP-biogenic. As required by PCR 2019:14 v2.0.1, an additional indicator (GWP-GHG) is included, this is identical to GWP-total except that the characterisation factor for biogenic carbon dioxide is set to zero. The results of this analysis is comparable with other EPDs based on PCRs aligned with version 5.0.1 of the General Programme Instructions [5].

Allocation and cut-off rules

Regarding end-of-life allocation, the 'polluter-pays' principle is followed, specifically the 'cut-off' approach. All unit processes before the point of end-of-waste shall be assigned to the product system generating the waste and all unit processes after the point of end-of-waste shall be assigned to the subsequent product system. For virgin resources, raw materials and production processes are included; for recycled input materials, the impacts related to the transformation of the recycled material—following sorting, collection and cleaning—into secondary raw material are considered; for outputs sent to recycling, the sorting, collection and cleaning processes of the secondary material are considered.
The company consumption is attributed to the products manufactured based on m^2 produced.

No cut-off criteria are applied.

No allocation criteria for co-products are applied, in absence of any co-products.

LCA assumptions

The following simplifications are considered:

- Secondary data from ecoinvent database, literature data, and the Eurostat database are used;
- Support activities, infrastructure, capital goods, research, and development activities, personnel commuting, and business travel are not included, in accordance with the PCR 2019:14. However, since their exclusion is difficult, infrastructure and capital goods already present within the ecoinvent database datasets are considered in the study;
- To facilitate the LCA calculations and presentation of results, the LCA software SimaPro Craft v10.2 is used, which includes several LCA databases, including ecoinvent.

Method

For the assessment of the potential environmental impacts of the product considered, the method recommended by PCR 2019:14 v2.0.1 – Construction Products [2], is used, while for energy indicators, option A from Annex 3 of the PCR is applied.

Database and LCA software used

Database: ecoinvent v3.11
Software: SimaPro Craft v10.2

Scenarios

The dataset on the marble slabs and aluminum honeycomb core that constitute the honeycomb panel are based on literature data.Primary data are used for marble transportation from the quarry to the supplier and from suppliers to NC Marmi.

Data on electricity consumption, water consumption and specific waste per type of processing undergone by the product are used to define the production processes. In addition, company consumptions and waste production for the reference year are also considered. These are divided according to total production, with particular attention paid to avoiding double counting with specific processing consumption.

For the energy mix, an ad-hoc process is created that considers the purchase of certificates of guarantee of origin, particularly 100% photovoltaic. The GWP-GHG indicator value regarding electricity is 0.085 kg CO_2 eq/kWh. For distribution, primary data is used.

Scenario information	Unit (expressed per declared unit)
Fuel type and consumption of vehicle or vehicle type used for transport	4.49E-05 l/km Transport, freight, lorry, 16-32 metric ton, diesel, EURO 5 {RER}| market for transport, freight, lorry, 16-32 metric ton, diesel, EURO 5 | Cut-off, S
Distance	431 km
Capacity utilisation	36.3%
Bulk density of transported products	65.06 kg/m^3 [30]
Volume capacity utilisation factor	Non-applicable

Table 3 - Distribution information

The installation stage includes the use of adhesives, sealants and the disposal of packaging.

Scenario information	Unit (expressed per declared unit)	
Auxiliary materials for installation	SIMP-SEAL 640-adhesive 0.4 kg/m^2	
	OTTOSEAL S-70-sealant 14.27 ml/m^2	
Water use	-	
Quantitative desciption of energy type (regional mi) and consumption during the installation process	-	
Waste materials on the building site before waste processing, genered by the product's installation	Primary packaging	0.046 kg PE, 0.143 kg PU e 0.023 kg PS
	Tertiary packaging	0.138 kg wood
Output materials as result of waste processing at the building site	-	
Direct emissions to ambient air, soil and water	-	

Table 4 - Installation information

During the application phase, the product packaging is disposed. The following Eurostat 2022 percentages are considered for its disposal [6]. In addition, transport is assumed for disposal over a distance of 80 km for recycling and landfill scenario and 130 km for the incineration scenario, using a lorry of 16-32 ton euro 5, in accordance with the PCR.

Disposed material	Recycling	Landifill	Incineration
Wood	49%	47%	4%
Polyethylene, polyurethane, polystyrene	47%	10%	43%

Table 5 - Eurostat data of packaging disposal

A sensitivity analysis is carried out, also considering the scenario of 100% recycling, 100% landfill and 100% incineration of packaging and the respective D module, as required by the PCR.

No primary data are available for the end-of-life scenario, so the default PCR data are used.

In particular, for the demolition-deconstruction phase (C1), the consumption of 5kWh/t (diesel) is considered using the ecoinvent process “Diesel, burned in building machine {GLO}| market for diesel, burned in building machine | Cut-off, S”. For the C2 module, transport of 80 km is considered using process “Transport, freight, lorry 16-32 metric ton, EURO5 {RoW}| market for transport, freight, lorry 16-32 metric ton, EURO5 | Cut-off, S”. The C3 module deals with the treatment that the product undergoes before being sent to disposal and it considers the crushing consumption, in particular 1.5 kWh/t (diesel). For the C4 module on disposal, the discard of the lightweight marble is considered and assumed that it is sent to landfill. The assumption is made because construction materials are usually used as inert materials for road bases or buildings, so the most cautionary scenario is landfill. Furthermore, this assumption is in line with what is reported in the consumption data provided by the PCR (1.6 kWh/t “Diesel, burned in building machine {GLO}| market for diesel, burned in building machine | Cut-off, S”).

Processes	Unit (expressed per declared unit of components product)
Collection process specified by type	15.53 kg Lightweight marble 10+5 panel
Disposal specified by type	15.53 kg landfill
Assumptions for scenario development	Global scenario, as the product is applied to yacht that could be disposed at the end-of-life anywhere in the world
Assumption for transport	80 km Transport, freight, lorry 16-32 metric ton, EURO5 {RoW}| market for transport, freight, lorry 16-32 metric ton, EURO5	Cut-off, S

Table 6 - Product end-of-life information

For module D, the benefits and loads relating to reuse, recovery and recycling of packaging (wood, polyethylene, polystyrene and polyurethane) are considered in terms of the use of recycled materials to replace virgin materials and recovery due to disposal in incineration with energy recovery and landfill of both packaging and product. The calculation is performed based on the formulas given in Annex D of standard EN 15804 [1].

Environmental performance

Environmental impact indicators

The following environmental impact indicators are considered, according to the PCR 2019:14 v2.0.1 [4], UNI EN 15804 [1] standard, and JRC EF3.1 characterisation factors. For energy indicators, a method is developed based on option A from Annex 3 of the PCR.

Core environmental impact indicators	Unit
Global Warming Potential - total (GWP-total)	kg CO_2 eq.
Global Warming Potential - fossil fuels (GWP-fossil)	kg CO_2 eq.
Global Warming Potential - biogenic (GWP-biogenic)	kg CO_2 eq.
Global Warming Potential - land use and land use change (GWP-luluc)	kg CO_2 eq.
Ozone depletion potential (ODP)	kg CFC-11 eq.
Acidification potential (AP)	mol H+ eq.
Eutrophication potential - freshwater (EP-freshwater)	kg P eq.
Eutrophication potential - marine (EP-marine)	kg N eq.
Eutrophication potential - terrestrial (EP-terrestrial)	mol N eq.
Photochemical Ozone Creation Potential (POCP)	kg NMVOC eq.
Abiotic depletion potential - non-fossil resources (ADPE)	kg Sb eq.
Abiotic depletion potential - fossil resources (ADPF)	MJ
Water (user) deprivation potential (WDP)	m^3 world eq. deprived

Core environmental impact indicators	Unit
Additional mandatory environmental impact indicators	
Global Warming Potential (GWP-GHG)	kg CO_2 eq.
Additional voluntary environmental impact indicators	
Particulate Matter emissions (PM)	Disease incidence
Ionizing radiation, human health (IRP)	kBq U235 eq.
Eco-toxicity - freshwater (ETP-fw)	CTUe
Human toxicity, cancer effect (HTP-c)	CTUh
Human toxicity, non-cancer effects (HTP-nc)	CTUh
Land use related impacts/Soil quality (SQP)	dimensionless
Indicators describing resource use	
Use of renewable primary energy as energy carrier (PERE)	MJ
Use of renewable primary energy resources used as raw materials (PERM)	MJ
Total use of renewable primary energy (PERT)	MJ
Use of non renewable primary energy as energy carrier (PENRE)	MJ
Use of non renewable primary energy resources used as raw materials (PENRM)	MJ

Core environmental impacts	Unit
Total use of non renewable primary energy resource (PENRT)	MJ
Use of secondary material (SM)	kg
Use of renewable secondary fuels (RSF)	MJ
Use of non renewable secondary fuels (NRSF)	MJ
Net use of fresh water (FW)	m^3
Environmental information describing waste categories	
Hazardous waste disposed (HWD)	kg
Non hazardous waste disposed (NHWD)	kg
Radioactive waste disposed (RWD)	kg
Environmental information describing output flows	
Components for re-use (CRU)	kg
Materials for recycling (MFR)	kg
Materials for energy recovery (MER)	kg
Exported energy (EE), electricity	MJ
Exported energy (EE), thermal	MJ

Table 7 - Environmental indicators included in the analysis

The results of the end-of-life stage (modules C1-C4) should be considered when using the results of the product stage (modules A1-A3).

The biogenic CO_2 balance is carried out within end-of-life. The results of the end-of-life stage (modules C1-C4) should be considered when using the results of the product stage (modules A1-A3).

Environmental impact assessment of 1 m^2 of the Lightweight marble 10+5 panel

Potential environmental impact – mandatory indicators according to EN 15804

	Results by declared unit								
Indicator	**Unit**	**A1-A3**	**A4**	**A5**	**C1**	**C2**	**C3**	**C4**	**D**
GWP-total	kg CO_2 eq.	6.85E+01	1.52E+00	7.16E+00	2.89E-02	2.58E-01	8.67E-03	9.32E-03	-8.93E-01
GWP-fossil	kg CO_2 eq.	6.54E+01	1.52E+00	3.10E+00	2.89E-02	2.58E-01	8.67E-03	9.32E-03	-9.11E-01
GWP-biogenic	kg CO_2 eq.	3.02E+00	1.04E-03	4.07E+00	5.85E-06	8.19E-05	1.75E-06	1.89E-06	1.83E-02
GWP-luluc	kg CO_2 eq.	7.11E-02	5.02E-04	-7.83E-04	2.96E-06	1.16E-04	8.87E-07	9.53E-07	-1.41E-04
ODP	kg CFC11 eq.	4.41E-05	3.31E-08	3.86E-04	4.29E-10	3.27E-09	1.29E-10	1.38E-10	-3.34E-08
AP	mol H+ eq.	3.36E-01	4.87E-03	9.04E-03	2.58E-04	8.81E-04	7.75E-05	8.33E-05	-1.84E-03
EP-freshwater	kg P eq.	3.59E-02	1.04E-04	5.73E-04	9.31E-07	2.83E-05	2.79E-07	3.00E-07	-1.13E-04
EP-marine	kg N eq.	3.59E-01	1.64E-03	1.66E-03	1.20E-04	2.79E-04	3.60E-05	3.88E-05	-4.27E-04
EP-terrestrial	mol N eq.	8.48E-01	1.78E-02	1.24E-02	1.32E-03	3.03E-03	3.95E-04	4.24E-04	-4.35E-03
POCP	kg NMVOC eq.	3.08E-01	7.39E-03	3.91E-03	3.94E-04	1.19E-03	1.18E-04	1.27E-04	-2.03E-03
ADP-minerals & metals*[3]	kg Sb eq.	1.06E-03	5.12E-06	3.15E-06	1.03E-08	8.45E-07	3.09E-09	3.33E-09	-1.07E-06
ADP-fossil*	MJ	9.59E+02	2.15E+01	3.11E+01	3.76E-01	3.57E+00	1.13E-01	1.21E-01	-1.55E+01
WDP*	m^3	2.59E+01	8.35E-02	2.53E-02	8.04E-04	1.66E-02	2.41E-04	2.59E-04	-2.20E-01
Acronyms	GWP-fossil = Global Warming Potential fossil fuels; GWP-biogenic = Global Warming Potential biogenic; GWP-luluc = Global Warming Potential land use and land use change; ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption								

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

Table 8 - Results by declared unit

A1	Raw material supply
A2	Transport
A3	Manufacturing
A4	Transport
A5	Construction installation
C1	Decostruction, demolition
C2	Transport
C3	Waste processing
C4	Disposal
D	Reuse-recover-recycling potential

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.

Potential environmental impact – additional mandatory and voluntary

	Results by declared unit								
Indicator	**Unit**	**A1-A3**	**A4**	**A5**	**C1**	**C2**	**C3**	**C4**	**D**
GWP-GHG[1]	kg CO_2 eq.	6.66E+01	1.52E+00	3.14E+00	2.89E-02	2.58E-01	8.67E-03	9.32E-03	-9.11E-01
PM	Disease incidence	4.25E-06	1.21E-07	3.49E-08	7.37E-09	2.00E-08	2.21E-09	2.38E-09	-7.19E-09
IRP**	kBq U235 eq.	4.10E+00	2.57E-02	1.45E-01	1.60E-04	2.88E-03	4.81E-05	5.17E-05	-6.29E-02
ETP-fw*[3]	CTUe	1.18E+03	2.85E+00	6.17E+02	2.04E-02	6.57E-01	6.12E-03	6.58E-03	-3.45E+00
HTP-c*[3]	CTUh	4.18E-08	2.57E-10	1.29E-08	2.94E-12	4.31E-11	8.81E-13	9.47E-13	-2.30E-10
HTP-nc*[3]	CTUh	1.98E-06	1.34E-08	9.93E-09	4.62E-11	2.21E-09	1.39E-11	1.49E-11	-2.14E-09
SQP*[2]	dimensionless	1.47E+03	1.27E+01	-3.07E+02	2.50E-02	2.10E+00	7.49E-03	8.05E-03	-1.34E+00
Acronyms	GWP-GHG = Global Warming Potential neutral; PM = Potential incidence of disease due to PM emissions; IRP = Potential human exposure efficiency relative to U235, ETP,fw = Potential comparative toxic unit for ecosystems; HTP-c = Potential comparative toxic unit for effects; HTP-nc = Potential comparative toxic unit for humans; SQP = Potential soil quality index.								

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

** Disclaimer: This impact category deals mainly with the eventual impact of low dose ionizing radiation on human health of the nuclear fuel cycle. It does not consider effects due to possible nuclear accidents, occupational exposure nor due to radioactive waste disposal in underground facilities, Potential ionizing radiation from the soil, from radon and from some construction materials is also not measured by this indicator.

Table 9 – Results by declared unit – additional indicator

[1]The indicator includes all greenhouse gases included in GWP-total but excludes biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product.

[2]The results of the impact categories abiotic depletion of minerals and metals, land use, human toxicity (cancer), human toxicity (non-cancer) and ecotoxicity (freshwater) may be highly uncertain in LCAs that include capital goods/infrastructure in generic datasets, in case infrastructure/capital goods contribute greatly to the total results. This is because the LCI data of infrastructure/capital goods used to quantify these indicators in currently available generic datasets sometimes lack temporal, technological and geographical representativeness. Caution should be exercised when using the results of these indicators for decision-making purposes.

Use of resources

	Results by declared unit								
Indicator	**Unit**	**A1-A3**	**A4**	**A5**	**C1**	**C2**	**C3**	**C4**	**D**
PERE	MJ	4.83E+02	3.39E-01	-2.04E+00	2.30E-03	4.76E-02	6.91E-04	7.43E-04	-2.29E+00
PERM	MJ	4.46E+01	0.00E+00	-4.46E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PERT	MJ	5.27E+02	3.39E-01	-4.66E+01	2.30E-03	4.76E-02	6.91E-04	7.43E-04	-2.29E+00
PENRE	MJ	8.94E+02	2.15E+01	2.57E+01	3.76E-01	3.57E+00	1.13E-01	6.59E+01	-1.55E+01
PENRM	MJ.	6.49E+01	0.00E+00	9.03E-01	0.00E+00	0.00E+00	0.00E+00	-6.58E+01	0.00E+00
PENRT	MJ	9.59E+02	2.15E+01	2.66E+01	3.76E-01	3.57E+00	1.13E-01	1.21E-01	-1.55E+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
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
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
FW	m^3	7.75E-01	2.69E-03	1.52E-02	2.65E-05	4.93E-04	7.96E-06	8.56E-06	-6.06E-03
Acronyms	PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials; PENRM = Use of non-renewable primary energy resources used as raw materials; PENRT = Total use of non-renewable primary energy re-sources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water								

Table 10 - Use of resources

Waste production and output flows

Waste production

	Results by declared unit							
Indicator	**Unit**	**A1-A3**	**A4**	**A5**	**C1**	**C2**	**C3**	**C4**	**D**
Hazardous waste disposed	kg	1.44E-02	1.47E-04	1.44E-04	2.62E-06	2.41E-05	7.86E-07	8.45E-07	-1.15E-04
Non-hazardous waste disposed	kg	7.97E+01	1.03E+00	-1.64E-02	2.54E-04	1.65E-01	7.62E-05	8.19E-05	-1.98E-02
Radioactive waste disposed	kg	1.03E-03	6.33E-06	3.49E-05	3.94E-08	7.05E-07	1.18E-08	1.27E-08	-1.64E-05

Table 11 - Waste production

Output flows

	Results by declared unit							
Indicator	**Unit**	**A1-A3**	**A4**	**A5**	**C1**	**C2**	**C3**	**C4**	**D**
Components for re-use	kg	0.00E+00	0.00E+00	2.62E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Materials for recycling	kg	6.15E+01	0.00E+00	1.67E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Materials for energy recovery	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
Exported energy, electricity	MJ	3.64E-01	0.00E+00	4.00E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy, thermal	MJ	2.71E+00	0.00E+00	7.79E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Table 12 - Output flows

Biogenic carbon

	Results by declared unit	
Biogenic carbon content	**Unit**	**Amount**
Biogenic carbon content in the product	kg C	Non-significant (<5%)
Biogenic carbon content in the packaging	kg C	1.355

Table 13 - Biogenic carbon content

Additional scenarios for modules A5 and D

A sensitivity analysis is carried out, also considering the scenario of 100% recycling, 100% landfill and 100% incineration of packaging and the respective D module, as required by the PCR.

100% packaging recycling scenario

	Results by declared unit		
Indicator	**Unit**	**A5**	**D**
GWP-total	kg CO_2 eq.	6.93E+00	-7.61E-01
GWP-fossil	kg CO_2 eq.	2.85E+00	-8.22E-01
GWP-biogenic	kg CO_2 eq.	4.08E+00	6.19E-02
GWP-luluc	kg CO_2 eq.	-7.61E-04	-1.89E-04
ODP	kg CFC11 eq.	3.86E-04	-3.08E-08
AP	mol H+ eq.	8.97E-03	-1.81E-03
EP-freshwater	kg P eq.	5.78E-04	-1.17E-04
EP-marine	kg N eq.	1.26E-03	-4.27E-04
EP-terrestrial	mol N eq.	1.19E-02	-4.23E-03
POCP	kg NMVOC eq.	3.81E-03	-1.99E-03
ADP-minerals & metals*[3]	MJ	3.25E-06	-1.64E-06
ADP-fossil*	kg Sb eq.	3.13E+01	-1.46E+01
WDP*	m^3	2.24E-02	-2.16E-01
Acronyms	GWP-fossil = Global Warming Potential fossil fuels; GWP-biogenic = Global Warming Potential biogenic; GWP-luluc = Global Warming Potential land use and land use change; ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption		

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

Table 14 - Results by declared unit -100% packaging recycling scenario

	Results by declared unit		
Indicator	**Unit**	**A5**	**D**
GWP-GHG[3]	kg CO_2 eq.	2.90E+00	-8.22E-01
PM	Disease incidence	3.90E-08	-6.51E-09
IRP**	kBq U235 eq.	1.45E-01	-5.90E-02
ETP-fw*[3]	CTUe	6.17E+02	-6.47E+00
HTP-c*[3]	CTUh	1.29E-08	-3.53E-10
HTP-nc*[3]	CTUh	9.63E-09	-2.36E-09
SQP*[4]	dimensionless	-3.07E+02	-1.49E+00
Acronyms	GWP-GHG = Global Warming Potential neutral; PM = Potential incidence of disease due to PM emissions; IRP = Potential human exposure efficiency relative to U235, ETP,fw = Potential comparative toxic unit for ecosystems; HTP-c = Potential comparative toxic unit for effects; HTP-nc = Potential comparative toxic unit for humans; SQP = Potential soil quality index.		

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

** Disclaimer: This impact category deals mainly with the eventual impact of low dose ionizing radiation on human health of the nuclear fuel cycle. It does not consider effects due to possible nuclear accidents, occupational exposure nor due to radioactive waste disposal in underground facilities, Potential ionizing radiation from the soil, from radon and from some construction materials is also not measured by this indicator.

Table 15 - Results by declared unit – additional indicator – 100% packaging recycling scenario

[3]The indicator includes all greenhouse gases included in GWP-total but excludes biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product.

[4]The results of the impact categories abiotic depletion of minerals and metals, land use, human toxicity (cancer), human toxicity (non-cancer) and ecotoxicity (freshwater) may be highly uncertain in LCAs that include capital goods/infrastructure in generic datasets, in case infrastructure/capital goods contribute greatly to the total results. This is because the LCI data of infrastructure/capital goods used to quantify these indicators in currently available generic datasets sometimes lack temporal, technological and geographical representativeness. Caution should be exercised when using the results of these indicators for decision-making purposes.

	Results by declared unit		
Indicator	**Unit**	**A5**	**D**
PERE	MJ	-3.13E+00	-2.06E+00
PERM	MJ	-4.46E+01	0.00E+00
PERT	MJ	-4.77E+01	-2.06E+00
PENRE	MJ	2.32E+01	-1.46E+01
PENRM	MJ.	9.03E-01	0.00E+00
PENRT	MJ	2.41E+01	-1.46E+01
SM	kg	0.00E+00	0.00E+00
RSF	MJ	0.00E+00	0.00E+00
NRSF	MJ	0.00E+00	0.00E+00
FW	m^3	1.54E-02	-5.77E-03
Acronyms	PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials; PENRM = Use of non-renewable primary energy resources used as raw materials; PENRT = Total use of non-renewable primary energy re-sources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water		

Table 16 – Use of resources – 100% packaging recycling scenario

	Results by declared unit		
Indicator	**Unit**	**A5**	**D**
Hazardous waste disposed	kg	1.45E-04	-1.53E-04
Non-hazardous waste disposed	kg	-9.52E-02	-1.76E-02
Radioactive waste disposed	kg	3.51E-05	-1.54E-05

Table 17 – Waste production – 100% packaging recycling scenario

	Results by declared unit		
Indicator	**Unit**	**A5**	**D**
Components for re-use	kg	2.62E+00	0.00E+00
Material for recycling	kg	3.50E-01	0.00E+00
Materials for energy recovery	kg	0.00E+00	0.00E+00
Exported energy, electricity	MJ	0.00E+00	0.00E+00
Exported energy, thermal	MJ	0.00E+00	0.00E+00

Table 18 – Output flows – 100% packaging recycling scenario

100% packaging landfill scenario

	Results by declared unit		
Indicator	**Unit**	**A5**	**D**
GWP-total	kg CO_2 eq.	6.89E+00	-1.03E+00
GWP-fossil	kg CO_2 eq.	2.84E+00	-1.01E+00
GWP-biogenic	kg CO_2 eq.	4.06E+00	-2.40E-02
GWP-luluc	kg CO_2 eq.	-8.06E-04	-9.95E-05
ODP	kg CFC11 eq.	3.86E-04	-3.62E-08
AP	mol H+ eq.	8.82E-03	-1.91E-03
EP-freshwater	kg P eq.	5.68E-04	-1.13E-04
EP-marine	kg N eq.	4.20E-03	-4.37E-04
EP-terrestrial	mol N eq.	1.14E-02	-4.56E-03
POCP	kg NMVOC eq.	3.64E-03	-2.10E-03
ADP-minerals & metals*[3]	MJ	3.02E-06	-5.75E-07
ADP-fossil*	kg Sb eq.	3.08E+01	-1.67E+01
WDP*	m^3	1.24E-02	-2.30E-01
Acronyms	GWP-fossil = Global Warming Potential fossil fuels; GWP-biogenic = Global Warming Potential biogenic; GWP-luluc = Global Warming Potential land use and land use change; ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption		

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

Table 19 - Results by declared unit -100% packaging landfill scenario

	Results by declared unit		
Indicator	**Unit**	**A5**	**D**
GWP-GHG[5]	kg CO_2 eq.	2.88E+00	-1.01E+00
PM	Disease incidence	3.04E-08	-7.97E-09
IRP**	kBq U235 eq.	1.44E-01	-6.83E-02
ETP-fw*[3]	CTUe	6.16E+02	-7.77E-01
HTP-c*[3]	CTUh	1.28E-08	-1.23E-10
HTP-nc*[3]	CTUh	9.02E-09	-1.99E-09
SQP*[6]	dimensionless	-3.07E+02	-1.22E+00
Acronyms	GWP-GHG = Global Warming Potential neutral; PM = Potential incidence of disease due to PM emissions; IRP = Potential human exposure efficiency relative to U235, ETP,fw = Potential comparative toxic unit for ecosystems; HTP-c = Potential comparative toxic unit for effects; HTP-nc = Potential comparative toxic unit for humans; SQP = Potential soil quality index.		

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

** Disclaimer: This impact category deals mainly with the eventual impact of low dose ionizing radiation on human health of the nuclear fuel cycle. It does not consider effects due to possible nuclear accidents, occupational exposure nor due to radioactive waste disposal in underground facilities, Potential ionizing radiation from the soil, from radon and from some construction materials is also not measured by this indicator.

Table 20 – Results by declared unit – additional indicator – 100% packaging landfill scenario

[5]The indicator includes all greenhouse gases included in GWP-total but excludes biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product.

[6]The results of the impact categories abiotic depletion of minerals and metals, land use, human toxicity (cancer), human toxicity (non-cancer) and ecotoxicity (freshwater) may be highly uncertain in LCAs that include capital goods/infrastructure in generic datasets, in case infrastructure/capital goods contribute greatly to the total results. This is because the LCI data of infrastructure/capital goods used to quantify these indicators in currently available generic datasets sometimes lack temporal, technological and geographical representativeness. Caution should be exercised when using the results of these indicators for decision-making purposes.

	Results by declared unit		
Indicator	**Unit**	**A5**	**D**
PERE	MJ	-9.32E-01	-2.57E+00
PERM	MJ	-4.46E+01	0.00E+00
PERT	MJ	-4.55E+01	-2.57E+00
PENRE	MJ	2.99E+01	-1.67E+01
PENRM	MJ.	9.03E-01	0.00E+00
PENRT	MJ	3.08E+01	-1.67E+01
SM	kg	0.00E+00	0.00E+00
RSF	MJ	0.00E+00	0.00E+00
NRSF	MJ	0.00E+00	0.00E+00
FW	m^3	1.36E-02	-6.50E-03
Acronyms	PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials; PENRM = Use of non-renewable primary energy resources used as raw materials; PENRT = Total use of non-renewable primary energy re-sources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water		

Table 21 – Use of resources – 100% packaging landfill scenario

	Results by declared unit		
Indicator	**Unit**	**A5**	**D**
Hazardous waste disposed	kg	1.41E-04	-8.21E-05
Non-hazardous waste disposed	kg	2.35E-01	-2.22E-02
Radioactive waste disposed	kg	3.47E-05	-1.78E-05

Table 22 – Waste production – 100% packaging landfill scenario

	Results by declared unit		
Indicator	**Unit**	**A5**	**D**
Components for re-use	kg	2.62E+00	0.00E+00
Material for recycling	kg	0.00E+00	0.00E+00
Materials for energy recovery	kg	0.00E+00	0.00E+00
Exported energy, electricity	MJ	0.00E+00	0.00E+00
Exported energy, thermal	MJ	0.00E+00	0.00E+00

Table 23 – Output flows – 100% packaging landfill scenario

100% packaging incineration scenario

	Results by declared unit		
Indicator	**Unit**	**A5**	**D**
GWP-total	kg CO_2 eq.	7.48E+00	-1.01E+00
GWP-fossil	kg CO_2 eq.	3.42E+00	-9.85E-01
GWP-biogenic	kg CO_2 eq.	4.06E+00	-2.30E-02
GWP-luluc	kg CO_2 eq.	-8.00E-04	-9.69E-05
ODP	kg CFC11 eq.	3.86E-04	-3.57E-08
AP	mol H+ eq.	9.19E-03	-1.84E-03
EP-freshwater	kg P eq.	5.70E-04	-1.09E-04
EP-marine	kg N eq.	1.47E-03	-4.24E-04
EP-terrestrial	mol N eq.	1.34E-02	-4.44E-03
POCP	kg NMVOC eq.	4.10E-03	-2.05E-03
ADP-minerals & metals*[3]	MJ	3.07E-06	-5.58E-07
ADP-fossil*	kg Sb eq.	3.10E+01	-1.63E+01
WDP*	m^3	3.30E-02	-2.20E-01
Acronyms	GWP-fossil = Global Warming Potential fossil fuels; GWP-biogenic = Global Warming Potential biogenic; GWP-luluc = Global Warming Potential land use and land use change; ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption		

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

Table 24 - Results by declared unit -100% packaging incineration scenario

	Results by declared unit		
Indicator	**Unit**	**A5**	**D**
GWP-GHG[7]	kg CO_2 eq.	3.46E+00	-9.86E-01
PM	Disease incidence	3.16E-08	-7.73E-09
IRP**	kBq U235 eq.	1.44E-01	-6.55E-02
ETP-fw*[3]	CTUe	6.17E+02	-7.54E-01
HTP-c*[3]	CTUh	1.29E-08	-1.21E-10
HTP-nc*[3]	CTUh	1.07E-08	-1.93E-09
SQP*[8]	dimensionless	-3.07E+02	-1.17E+00
Acronyms	GWP-GHG = Global Warming Potential neutral; PM = Potential incidence of disease due to PM emissions; IRP = Potential human exposure efficiency relative to U235, ETP,fw = Potential comparative toxic unit for ecosystems; HTP-c = Potential comparative toxic unit for effects; HTP-nc = Potential comparative toxic unit for humans; SQP = Potential soil quality index.		

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

** Disclaimer: This impact category deals mainly with the eventual impact of low dose ionizing radiation on human health of the nuclear fuel cycle. It does not consider effects due to possible nuclear accidents, occupational exposure nor due to radioactive waste disposal in underground facilities, Potential ionizing radiation from the soil, from radon and from some construction materials is also not measured by this indicator.

Table 25 – Results by declared unit – additional indicator – 100% packaging incineration scenario

[7]The indicator includes all greenhouse gases included in GWP-total but excludes biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product.

[8]The results of the impact categories abiotic depletion of minerals and metals, land use, human toxicity (cancer), human toxicity (non-cancer) and ecotoxicity (freshwater) may be highly uncertain in LCAs that include capital goods/infrastructure in generic datasets, in case infrastructure/capital goods contribute greatly to the total results. This is because the LCI data of infrastructure/capital goods used to quantify these indicators in currently available generic datasets sometimes lack temporal, technological and geographical representativeness. Caution should be exercised when using the results of these indicators for decision-making purposes.

	Results by declared unit		
Indicator	**Unit**	**A5**	**D**
PERE	MJ	-1.65E+00	-2.46E+00
PERM	MJ	-4.46E+01	0.00E+00
PERT	MJ	-4.63E+01	-2.46E+00
PENRE	MJ	2.75E+01	-1.63E+01
PENRM	MJ	9.03E-01	0.00E+00
PENRT	MJ	2.84E+01	-1.63E+01
SM	kg	0.00E+00	0.00E+00
RSF	MJ	0.00E+00	0.00E+00
NRSF	MJ	0.00E+00	0.00E+00
FW	m^3	1.58E-02	-6.23E-03
Acronyms	PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials; PENRM = Use of non-renewable primary energy resources used as raw materials; PENRT = Total use of non-renewable primary energy re-sources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water		

Table 26 – Use of resources – 100% packaging incineration scenario

	Results by declared unit		
Indicator	**Unit**	**A5**	**D**
Hazardous waste disposed	kg	1.42E-04	-8.04E-05
Non-hazardous waste disposed	kg	-1.06E-01	-2.15E-02
Radioactive waste disposed	kg	3.47E-05	-1.71E-05

Table 27 – Waste production – 100% packaging incineration scenario

	Results by declared unit		
Indicator	**Unit**	**A5**	**D**
Components for re-use	kg	2.62E+00	0.00E+00
Material for recycling	kg	0.00E+00	0.00E+00
Materials for energy recovery	kg	0.00E+00	0.00E+00
Exported energy, electricity	MJ	1.15E+00	0.00E+00
Exported energy, thermal	MJ	2.25E+00	0.00E+00

Table 28 – Output flows – 100% packaging incineration scenario

Abbreviations

CO_2 Carbon dioxide

CPC Central product classification

EPD Environmental product declaration

GHG Greenhouse gas

GPI General Programme Instructions

GWP Global warming potential

ISO International Organization for Standardization

LCA Life cycle assessment

LCI Life cycle inventory

PCR Product category rules

RSL Reference service life

SVHC Substance of very high concern

UN United Nations

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Version history

This document represents the original version.

