Environmental Product Declaration

In accordance with ISO 14025:2006 and EN 15804:2012+A2:2019/AC:2021 for:

Gypsum-based wall cladding

from

MODULO DECORATIVE SOLUTIONS

MODULO
MY LIFE STYLE, MY DESIGN

Programme:	The International EPD® System, www.environdec.com
Programme operator:	EPD International AB
EPD registration number:	S-P-11626
Publication date:	2023-12-09
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An EPD should provide current information and may be updated if conditions change. The stated validity is therefore subject to the continued registration and publication at www.environdec.com

General information

Programme information

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

Accountabilities for PCR, LCA and independent, third-party verification
Product Category Rules (PCR)
CEN standard EN 15804 serves as the Core Product Category Rules (PCR)
Product Category Rules (PCR): *PCR 2019:14 Construction products (EN 15804:A2) (1.3.1) and UN CPC 3754 - Tiles, flagstones, bricks and similar articles, of cement, concrete or artificial stone*
PCR review was conducted by: *IVL Swedish Environmental Research Institute Secretariat of the International EPD® System*
Life Cycle Assessment (LCA)
LCA accountability: *Dr. Ing. Kaspars Zudrags, BM Certification*
Third-party verification
Independent third-party verification of the declaration and data, according to ISO 14025:2006, via: ☒ EPD verification by individual verifier Third-party verifier: *Prof. Vladimír Kočí, PhD, LCA Studio* Approved by: The International EPD® System
Procedure for follow-up of data during EPD validity involves third party verifier: ☐ Yes ☒ No

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

EPDs within the same product category but registered in different EPD programmes, or not compliant with EN 15804, may not be comparable. For two EPDs to be comparable, they must be based on the same PCR (including the same 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 equivalent system boundaries and descriptions of data; apply equivalent data quality requirements, methods of data collection, and allocation methods; apply identical cut-off rules and impact assessment methods (including the same version of characterisation factors); have equivalent content declarations; and be valid at the time of comparison. For further information about comparability, see EN 15804 and ISO 14025.

Company information

Owner of the EPD: MODULO DECORATIVE SOLUTIONS

Contact: office@modulo.fr

Description of the organisation: MODULO is a European leader in the production and distribution of stone veneers, bricks, and 3D wall panels. Seeking to always improve and adapt to the market's demands, our team is constantly focused on creating new products. With over 35 years of industry experience, our craftsmanship and creative eye for design have made us one of the most revered wall cladding manufacturers in Europe, and beyond.
At MODULO, we believe in the home-enhancing benefits of wall claddings and it's this unrivalled passion for our craft that makes our products some of the best in the business.
Our striking wall coverings are originally designed in France by master craftsmen. Our proud French roots flourished over 30 years of local production and our innovative approach to stone craft is not only trendsetting but gives our interior and exterior products a stunning appearance coupled with a superior quality that is built using cutting-edge production techniques. We are often copied but never surpassed.
In addition to our passion for wall claddings, we care about the planet. We are an eco-friendly manufacturer with a commitment to green-friendly processes and lowering our carbon footprint for an ecological and sustainable future.

Product-related or management system-related certifications: Products are manufactured in an integrated management system certified according to ISO 9001, ISO 14001, ISO 45001.

Name and location of production site(s): 29, 22 Decembrie 1989 St., 401113 Turda, Cluj County, Romania.

Product information

Product category: Gypsum-based wall cladding.

Product name (average coverage per tonne of product; average A1-A3 GWP result per square meter):
Briscostone (61.7 sqm/t; 4.2 kg CO2 eq./sqm), Chamonix (49.5 sqm/t; 5.2 kg CO2 eq./sqm), Coral (63.3 sqm/t; 4.1 kg CO2 eq./sqm), Cote Mur (86.2 sqm/t; 3 kg CO2 eq./sqm), Orus (56.2 sqm/t; 4.6 kg CO2 eq./sqm), Oslo (48.3 sqm/t; 5.4 kg CO2 eq./sqm), Star (55.6 sqm/t; 4.7 kg CO2 eq./sqm), Vista (89.3 sqm/t; 2.9 kg CO2 eq./sqm), Yellowstone (59.9 sqm/t; 4.3 kg CO2 eq./sqm), Atlantis (73.5 sqm/t; 3.5 kg CO2 eq./sqm), Broadway (107.5 sqm/t; 2.4 kg CO2 eq./sqm), Cambridge (107.5 sqm/t; 2.4 kg CO2 eq./sqm), Camden (100 sqm/t; 2.6 kg CO2 eq./sqm), Corsica (123.5 sqm/t; 2.1 kg CO2 eq./sqm), Aria (78.7 sqm/t; 3.3 kg CO2 eq./sqm), Imperial (113.6 sqm/t; 2.3 kg CO2 eq./sqm), Kodiak (77.5 sqm/t; 3.3 kg CO2 eq./sqm), Lund (109.9 sqm/t; 2.4 kg CO2 eq./sqm), Manhattan (111.1 sqm/t; 2.3 kg CO2 eq./sqm), Skyfall (83.3 sqm/t; 3.1 kg CO2 eq./sqm), Vektor, Sesto, Haze, Lynx, Dune, Aero, Navaro, Oasis, Vivora Yin, Vivora Yang, Saga, Trinity, Trio, Veranda, Portal, Momo, Evostone, Veron.
The certification is valid for all products from the cement-based wall cladding category, even discontinued, private-label and newly released products not included in the list above.

Product identification: Production takes place in accordance with SR EN 15283-2 + A1_2010.

Product description: MODULO's gypsum decorative wall cladding for interiors seamlessly blends visual elegance with practicality. Crafted from premium gypsum, it offers a lightweight yet robust solution that's easy to install. Gypsum cladding is recognized for its ability to naturally balance indoor humidity levels, contributing to a more comfortable and healthier indoor environment. Available in a diverse range of textures, patterns, and colours, it provides extensive design versatility, suitable for any interior style. Echoing MODULO's dedication to sustainability, this eco-friendly cladding is an embodiment of the brand's innovative approach to interior design solutions.

Product application: Products are intended as decorative wall claddings with no structural strength. MODULO wall claddings are designed to be simple to install, with no special expertise or experience required. They can be easily applied with a range of adhesives, depending on the mounting surface (producers' adhesives are recommended for best results).

Technical specifications:
Coverage per box: varies (0.78 – 1.06 m^2);
Weight: max. 21 kg;
Dimensions: varies (19 – 58 x 4 – 27 cm);
Thickness: varies (1 – 3 cm);
Pieces per box: varies (12 – 69);
Reaction to fire euroclass: A1;
M Classification: Incombustible;
Flexural strength: min. 8.7 N/mm^2;
Density: 905 ± 15 kg/m^3;
For specific product technical information, consult the manufacturer's product datasheet.

UN CPC code: 3754 - Tiles, flagstones, bricks and similar articles, of cement, concrete or artificial stone.

Geographical scope: World

LCA information

Functional unit / declared unit: One 1 t of gypsum-based wall cladding (13.2 kg/m^2 average weight).

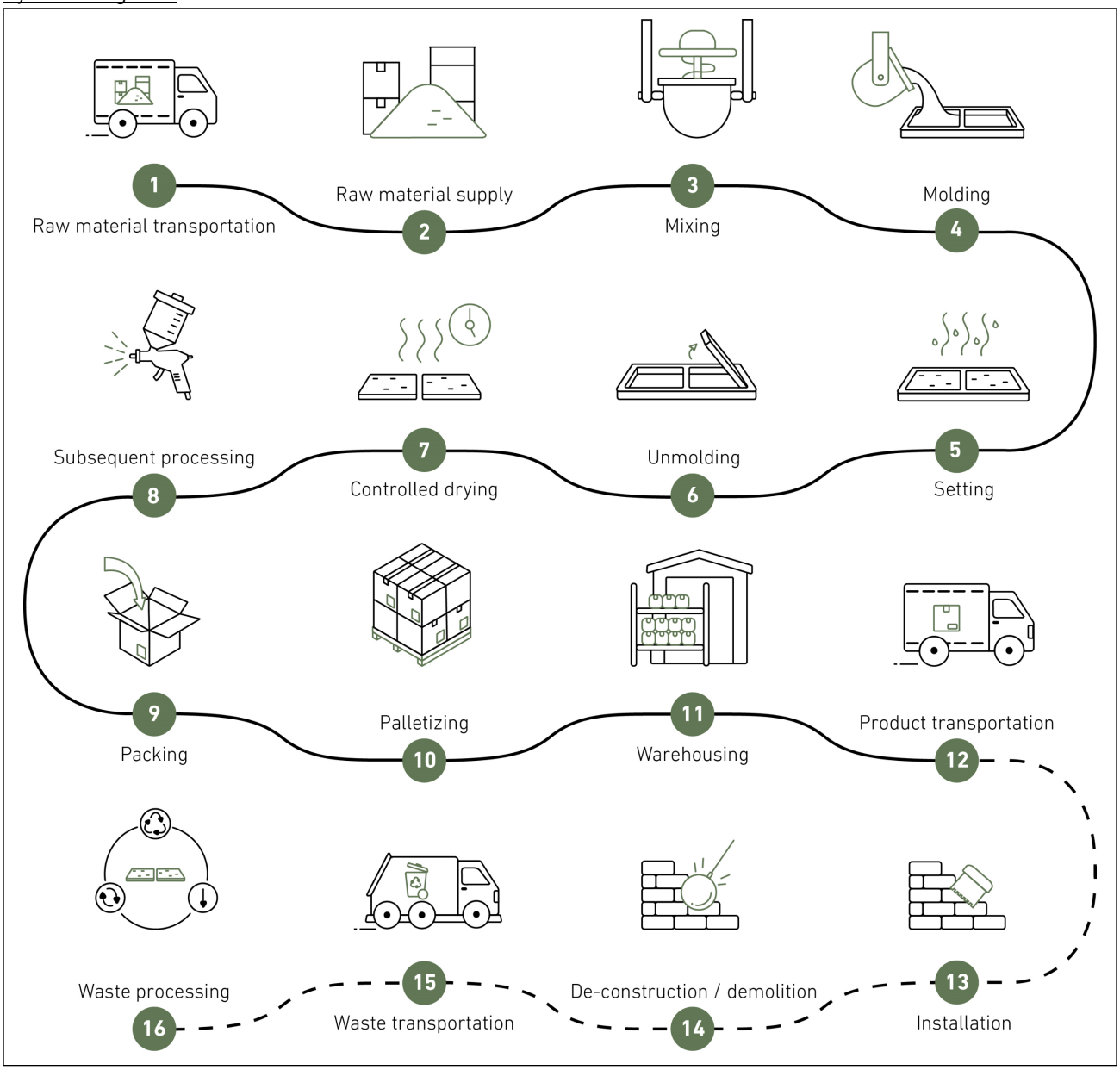
Reference service life: 20 to 30 years.

Time representativeness: Data for calculation were collected by Modulo and cover period of 12 months 2022.

Database(s) and LCA software used: One Click LCA, Ecoinvent 3.8.

Description of system boundaries: Cradle to gate with modules A4, A5, C1–C4 and module D (A1–A3 + A4 + A5 + C + D).

System diagram: Production flowchart



Cut-off rules:

All known inputs and outputs are included in the study. The ancillary materials have been cut-off due to insufficient and minor influence of data. The packaging is excluded as its mass is insignificant and consists of 100 % recyclable materials.

Energy sources of the electricity used in manufacturing processes of module A3 is modelling used by Market for electricity, medium voltage in Romania from Ecoinvent 3.8 and its climate impact in kg CO_2 eq./kWh using the GWP GHG indicator is 0.43.

Model A4 And C2 is modelled assumed that distance is 100km and transport lorry Euro 5 class

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

	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	Europe			-	-	-	-	-	-	-	-	-					Europe
Specific data used	<90%			-	-	-	-	-	-	-	-	-	-	-	-	-	-
Variation – products	<10%			-		-	-	-	-	-	-	-	-	-	-	-	-
Variation – sites	0%			-		-	-	-	-	-	-	-	-	-	-	-	-

X – included, ND – Module Not Declared.

Content information

Product components	Weight, kg	Post-consumer material, weight-%	Biogenic material, weight-% and kg C/kg
Gypsum	599.5		
Additives	0.8		
Water	399.7		
TOTAL	1000		
Packaging materials	**Weight, kg**	**Weight-% (versus the product)**	**Weight biogenic carbon, kg C/kg**
Cardboard	37.5	3.7	15.8
TOTAL	37.5		15.8

The product does not contain substances that can be included in the "Candidate List of Substances of Very High Concern for Authorisation".

Results of the environmental performance indicators

Mandatory impact category indicators according to EN 15804:2012+A2:2019

Results per functional or declared unit									
Indicator	**Unit**	**A1-A3**	**A4**	**A5**	**C1**	**C2**	**C3**	**C4**	**D**
GWP-total	kg CO_2 eq.	2,59E+02	9,29E+00	5,08E+01	0,00E+00	9,39E+00	1,33E+01	1,30E+00	-1,99E+00
GWP-fossil	kg CO_2 eq.	3,16E+02	9,38E+00	5,36E+01	0,00E+00	9,38E+00	1,32E+01	1,29E+00	-1,99E+00
GWP-biogenic	kg CO_2 eq.	-5,79E+01	3,63E-03	-2.70E+00	0,00E+00	3,63E-03	6.06E+01	5,24E-03	-2,58E-03
GWP-luluc	kg CO_2 eq.	4,62E-01	3,46E-03	1.63E-01	0,00E+00	3,46E-03	1,40E-02	1,34E-03	-1,79E-03
ODP	kg CFC 11 eq.	4,13E-05	2,16E-06	5.13E-06	0,00E+00	2,16E-06	3,37E-06	3,35E-07	-3,48E-07
AP	mol H^+ eq.	2,17E+00	3,97E-02	2.41E-01	0,00E+00	3,97E-02	3,22E+01	3,22E+00	-4,73E-02
EP-freshwater	kg P eq.	1,56E-02	7,68E-05	3.79E-03	0,00E+00	7,68E-05	3,43E-04	3,13E-05	-1,79E-05
EP-marine	kg N eq.	1,63E-01	1,18E-02	1.24E-03	0,00E+00	1,18E-02	3,34E-02	3,32E-03	-1,66E-02
EP-terrestrial	mol N eq,	1,76E+00	1,30E-01	5,20E-02	0,00E+00	1,30E-01	3,69E-01	3,66E-02	-2,35E-01
POCP	kg NMVOC eq,	6,19E-01	4,17E-02	5,74E-01	0,00E+00	4,17E-02	2,09E+00	2,09E-01	-4,93E-02
ADP-minerals&metals*	kg Sb eq.	2,20E-02	2,20E-05	2,00E+00	0,00E+00	2,20E-05	4,33E-05	4,25E-06	-3,24E-02
ADP-fossil*	MJ	5,75E+03	1,41E+02	1,04E+03	0,00E+00	1,41E+02	2,85E+02	2,79E+01	-2,44E+01
WDP*	m^3	8,54E+01	6,31E-01	2,59E-04	0,00E+00	6,31E-01	2,42E+00	2,25E-01	-2,60E-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 of these results are high or as there is limited experience with the indicator.*

Additional mandatory and voluntary impact category indicators

Indicator	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
GWP-GHG[1]	kg CO_2 eq.	3,16E+02	9,38E+00	5,38E+01	0,00E+00	9,38E+00	1,32E+01	1,29E+00	-1,99E+00

Resource use indicators

Results per functional or declared unit									
Indicator	**Unit**	**A1-A3**	**A4**	**A5**	**C1**	**C2**	**C3**	**C4**	**D**
PERE	MJ	1,49E+03	1,59E+00	6,33E+01	0,00E+00	1,59E+00	1,05E+01	9,44E-01	-5,61E-01
PERM	MJ	3,53E+02	0,00E+00	5,27E+01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PERT	MJ	1,85E+03	1,59E+00	1,16E+02	0,00E+00	1,59E+00	1,05E+01	9,44E-01	-5,61E-01
PENRE	MJ	5,67E+03	1,41E+02	7,90E+02	0,00E+00	1,41E+02	2,85E+02	2,79E+01	-2,44E+01
PENRM	MJ	7,64E+01	0,00E+00	2,45E+02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PENRT	MJ	5,75E+03	1,41E+02	1,04E+03	0,00E+00	1,41E+02	2,85E+02	2,79E+01	-2,44E+01
SM	kg	4,57E-01	3,91E-02	0,00E+00	0,00E+00	3,91E-02	9,70E-02	9,36E-03	-1,08E-02
RSF	MJ	1,23E-02	3,95E-04	0,00E+00	0,00E+00	3,95E-04	3,43E-03	3,43E-04	-4,59E-04
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	2,43E+00	1,83E-02	5,11E-01	0,00E+00	1,83E-02	2,95E-01	2,90E-02	-5,89E-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								

[1] This indicator accounts for all greenhouse gases except biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. As such, the indicator is identical to GWP-total except that the CF for biogenic CO_2 is set to zero.

Waste indicators

Results per functional or declared unit									
Indicator	**Unit**	**A1-A3**	**A4**	**A5**	**C1**	**C2**	**C3**	**C4**	**D**
HW	kg	3,50E+00	1,87E-01	1,05E-03	0,00E+00	1,87E-01	0,00E+00	0,00E+00	-6,98E-02
NHW	kg	7,19E+02	3,07E+00	1,28E+01	0,00E+00	3,07E+00	0,00E+00	1,00E+02	-6,84E-01
RW	kg	2,25E-02	9,43E-04	2,32E-03	0,00E+00	9,43E-04	0,00E+00	0,00E+00	-1,45E-04
Acronyms	HW = Hazardous waste disposed; NHW = Non-hazardous waste disposed; RW = Radioactive waste disposed								

Output flow indicators

Results per functional or declared unit									
Indicator	**Unit**	**A1-A3**	**A4**	**A5**	**C1**	**C2**	**C3**	**C4**	**D**
Components for re-use	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	9,00E+02
Material for recycling	kg	4,04E+01	0,00E+00	3,75E+01	0,00E+00	0,00E+00	9,00E+02	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	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, thermal	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

Additional environmental information

Technical datasheets for specific products, as well as detailed installation instructions can be found on www.ateliermodulo.fr.

Starting from 2024, the packaging consists of 100% recyclable materials and is plastics free.

By centralizing the transportation of goods to local logistical hubs, such as the dedicated facilities in the UK, France and Romania, and further reducing direct shipping from our central warehouse, Modulo Decorative Solutions significantly enhances logistical efficiency. This approach minimizes the travel distance for our products, notably reducing the carbon footprint associated with transportation.

References

General Programme Instructions of the International EPD® System. Version 4.0.
PCR 2019:14 Construction products (EN 15804:A2) (1.3.1)
LCA background report 30.11.2023
ISO 14025:2010 Environmental labels and declarations – Type III environmental declarations. Principles and procedures.
ISO 14040:2006 Environmental management. Life cycle assessment. Principles and frameworks.
ISO 14044:2006 Environmental management. Life cycle assessment. Requirements and guidelines.
EN 15804:2012+A2:2019 Sustainability of construction works - Environmental product declarations - Core rules for the product category of construction products

EPD®

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