

Environmental product declaration

According to standards ISO 14025:2006 and EN 15804:2012+A2:2020/AC:2021 for:



ecogreen
STACBOND

| ECOGREEN COMPOSITE FACADE PANELS

Version 1.0.

FR PANELS

A2 PANELS

EPD for multiple products, based on a representative product (FR panel)

Programme: The International EPD® System, www.envirodec.com

Programme operator: EPD International AB

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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.envirodec.com



From ECO BIERZO COMPOSITE S. L. (STACBOND®)

GENERAL INFORMATION

PROGRAMME INFORMATION

Programme: The International EPD® System

EPD International AB

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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 2020/AC:2021) Version 2.0.1

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. Chairs of the PCR Review: Rob Rouwette (chair) and Noa Meron (co-chair).

THIRD-PARTY VERIFICATION

Independent third-party verification of the declaration and data, according to ISO 14025:2006, via: Individual EPD verification without a pre-verified LCA/EPD tool Third-party verifier: CERTINALIA, S.L.U. is an approved certification body accountable for the third-party verification.

Accredited by: ENAC (accreditation number 125/C-PR283)

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 published in different EPD programs, 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 characterization factors); and be valid at the time of comparison. For further information about comparability, see EN 15804 and ISO 14025.

INFORMATION ABOUT EPD OWNER

Owner of the EPD: ECO BIERZO COMPOSITE S.L.

Address: C/ Isaac Prado Bodelón S/N, Polígono Industrial de La Rozada, Parandones 24516, Toral de los Vados, León, España

Contacto: epd@stacbond.es

Address and contact information of the LCA practitioner:

IK ingeniería

Av. Cervantes 51, Edif. 10, planta 5, dpto.

48970 Basauri, Bizkaia (España)

Description of the organization: ECO BIERZO COMPOSITE S.L. is a company specializing in the manufacture of products for the aluminum enclosure sector.

In each of its two divisions, ECO BIERZO COMPOSITE S.L. adopts millimetric precision in its designs, striving to meet the demands of today's market in terms of quality and innovation requirements. Consequently, not only does it have the best facilities, which are adapted to the different production lines, but it also has a specialized technical team, which has established ECO BIERZO COMPOSITE S.L. as one of the leaders in the sector. These divisions are:

- **STACBOND: Manufacture of composite panels**
- **STACBOND COIL COATING: Continuous painting and coil processing**

Product-related or management system-related certifications: STACBOND® is the leading company in the composite market in Spain. Since 2008, it has been developing products focused on ventilated façades. ECO BIERZO COMPOSITE S.L. has the following standards and certifications:

ISO 9001



ISO 14001



Zero Waste



The logo for ecogreen STACBOND. The word 'ecogreen' is in a white, lowercase, sans-serif font, with a stylized leaf icon integrated into the 'e'. Below it, 'STACBOND' is in a smaller, white, uppercase, sans-serif font. The background of the top section of the page features a collage of various composite panel samples in different colors and textures, including grey, brown, white, and wood-grain patterns.

PRODUCT INFORMATION

Product name: ECOGREEN composite panel.

UN CPC code: CPC 314 "BOARDS AND PANELS"

Product description: The ECOGREEN Composite Panel is composed of two aluminum sheets joined by a variable mineral core. It is lacquered with the highest quality paints, offering maximum resistance to ageing.

The manufacture of ECOGREEN Composite Panels follows a process that is controlled through rigorous testing and quality control. It has multiple applications, some of which are listed below:

- Ventilated façades
- Roofs and false ceilings
- Balconies and cantilevers
- Exterior doors, doorways, and canopies
- Street furniture
- All types of outdoor equipment.
- Industrial applications (automotive, railways, furniture, bodywork, etc.).

The EPD covers FR and A2 ECOGREEN composite panels.

ECOGREEN FR aluminum composite panel

The ECOGREEN FR panel has been developed to meet the most demanding requirements of current fire resistance regulations. Its thermoplastic resin core (low-density polyethylene and flame-retardant compounds) has a fire rating of B-S1, d0 according to the UNE-EN-13501-1:2019 standard. This panel stands out in the market as one of the most fire-resistant panels available.

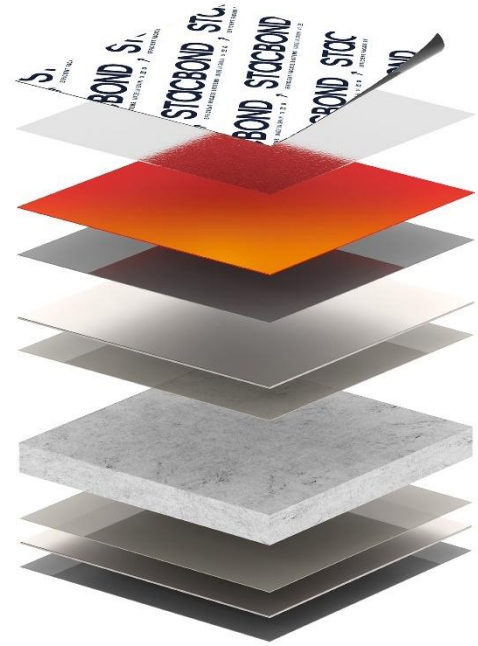


Figure 2. ECOGREEN FR

ETE/ETA 15/0655 emitido por el IETcc (Madrid, España)
INSTITUTO EDUARDO TORROJA DE CIENCIAS DE LA CONSTRUCCIÓN

DITplus 553p-25 emitido por el IETcc (Madrid, España)
INSTITUTO EDUARDO TORROJA DE CIENCIAS DE LA CONSTRUCCIÓN

Avis Technique 2.2/13-1548_V4 emitido por el CSTB (Marne la Vallée, Francia)
CENTRE SCIENTIFIQUE ET TECHNIQUE DU BÂTIMENT

Avis Technique 2.2/13-1549_V3 emitido por el CSTB (Marne la Vallée, Francia)
CENTRE SCIENTIFIQUE ET TECHNIQUE DU BÂTIMENT

ESR-4234 emitido por ICC-ES (Long Beach, USA)
INTERNATIONAL CODE COUNCIL EVALUATION SERVICE

DIBt Zulassung Z-10.3-809 emitido por DIBt (Berlín, Alemania)
DEUTSCHES INSTITUT FÜR BAUTECHNIK

ATM emitida por Intertek (Illinois, USA)

ITB-KOT-2017/0043 wydanie 3 emitido por ITB (Varsovia, Polonia)
INSTYTUT TECHNIKI BUDOWLANEJ

Valor AMEVEC emitido por AMEVEC (Ciudad de México, México)

VKF/AEAI 30738 emitido por VKF/AEAI (Berna, Suiza)
VEREINIGUNG KANTONALER FEUERVERSICHERUNGEN/ASSOCIATION DES ÉTABLISSEMENTS CANTONAUX D'ASSURANCE INCENDIE

FR Panel technical specifications

Width (min/max)	mm		800 / 2000
Length (min/max)	mm		2000 / 6000
Peeling	N/mm	ASTM D903 - 98 (2004)	≥ 7.0
Stiffness	kNcm ² /m	DIN 53293	2610
Resistance modulus	mm ³ /m	DIN 53293	1.496
Sound insulation Rw	dB	ISO 717-1	33 (-1; -4)
Thermal transmission (U)	W/m ² K	UNE-EN ISO 12567-1	5.67
Usage temperature	°C		- 50 / + 80

ECOGREEN A2 aluminum composite panel

The ECOGREEN A2 composite panel, with a mineral core, has been developed to meet the highest requirements of current fire resistance regulations. It has an A2-S1, d0 classification according to the UNE-EN-13501-1:2019 standard. This makes the new ECOGREEN A2 panel ideal for high-rise and high-traffic buildings such as hospitals, shopping centers, airports, and auditoriums.

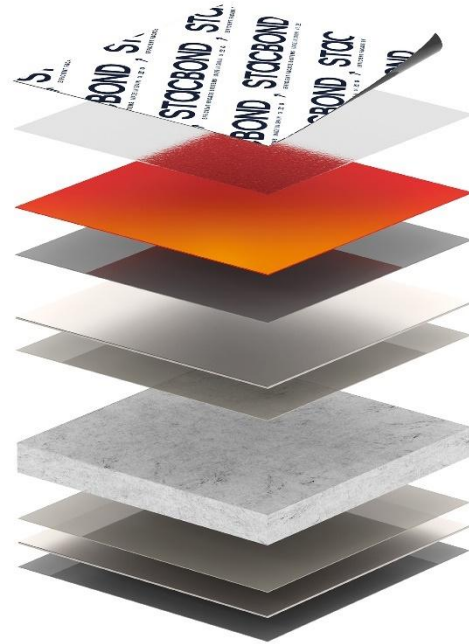


Figure 3. ECOGREEN A2

ETE/ETA 15/0655 emitido por el IETcc (Madrid, España)
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CENTRE SCIENTIFIQUE ET TECHNIQUE DU BÂTIMENT

Avis Technique 2.2/13-1549_V3 emitido por el CSTB (Marne la Vallée, Francia)
CENTRE SCIENTIFIQUE ET TECHNIQUE DU BÂTIMENT

DIBt Zulassung Z-10.3-809 emitido por DIBt (Berlín, Alemania)
DEUTSCHES INSTITUT FÜR BAUTECHNIK

ITB-KOT-2017/0043 wydanie 3 emitido por ITB (Varsovia, Polonia)
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Technical specifications for ECOGREEN A2 panel

Width (min/max)	mm		800 / 2000
Length (min/max)	mm		2000 / 6000
Peeling	N/mm	ASTM D903 - 98 (2004)	≥ 3.0
Stiffness	kNcm ² /m	DIN 53293	2400
Resistance modulus	mm ³ /m	DIN 53293	1.495
Sound insulation Rw	dB	ISO 717-1	29 (-1; -3)
Thermal transmission (U)	W/m ² K	UNE-EN ISO 12567-1	5.67
Usage temperature	°C		- 50 / + 80

CONTENT DECLARATION

Product components of FR panel	Mass, kg	Post-consumer recycled material, mass-% of product	Biogenic material, mass-% of product	Biogenic material, kg C/product or declared unit
Mineral core	4,78E+00	31,82%	0,00%	0,00E+00
Aluminium	2,39E+00	95,00%	0,00%	0,00E+00
Lacquer	1,80E-01	0,00%	0,00%	0,00E+00
Adhesive	1,51E-01	0,00%	0,00%	0,00E+00
TOTAL	7,70E+00	50,54%	0,00%	0,00E+00

Packaging materials	Mass, kg	Mass-% (versus the product)	Biogenic material, kg C/product or declared unit
Film	2,35E-02	0,31%	0,00E+00
Wood	1,32E-03	0,02%	6,60E-04
Carton	4,58E-03	0,06%	2,29E-03
TOTAL	2,94E-02	0,39%	2,95E-03

Packaging: The product is transported to the customer on a pallet.

Conversion factor
of the FR panel

1 m²
7,70 kg

Conversion factor
of the A2 panel

1 m²
9,30 kg

No substances included in the Candidate List of Substances of Very High Concern under REACH are present in the analyzed panels manufactured by STACBOND®, either above the limit for registration with the European Chemicals Agency or above 0.1% (weight/weight).

LCA INFORMATION

Declared unit: The declared base unit of reference is the unit for which all information is collected.

For this study, the declared unit is "1 m² of ECOGREEN panel".

Reference service life: Not relevant to this EPD.

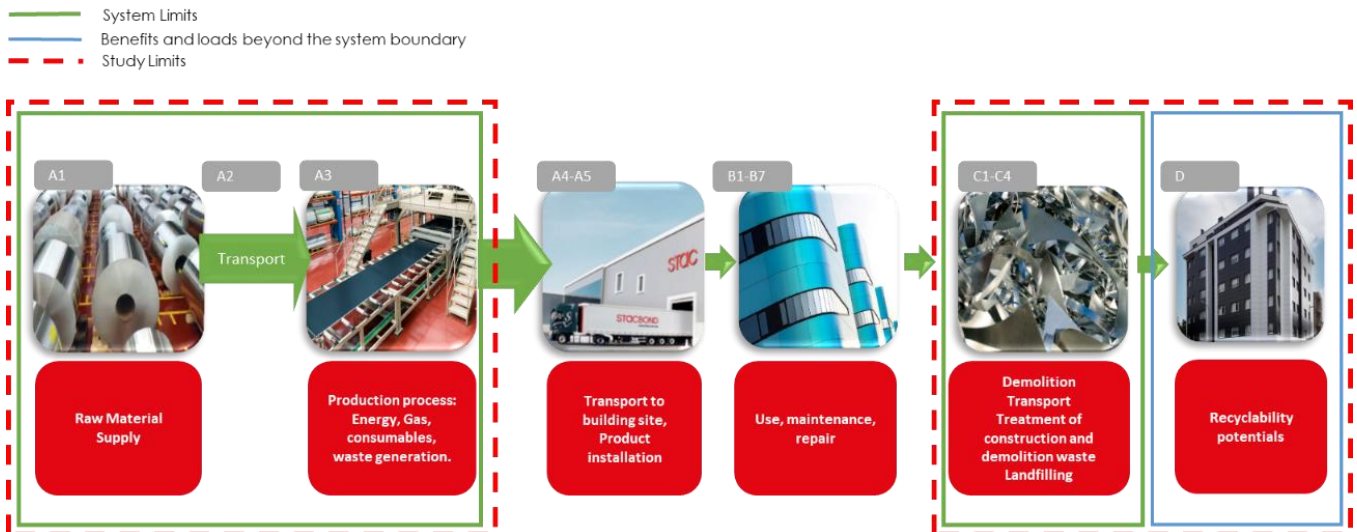
Geographical scope: The geographical scope of this EPD is global.

Time representativeness: Data collection from the factory (primary data) and electricity mix is from 1 January 2024 to 31 December 2024. In this study, no data older than 10 years has been used.

Database(s) and LCA software used: All data used to model the process and obtain the Life Cycle Inventory are specific data and have been obtained from measurements taken during the period from 1 January 2024 to 31 December 2024. They are representative of the different processes implemented during the manufacturing process. The data has been measured directly at the company's facilities. In addition, the most comprehensive and highest quality life cycle inventory database in Europe, Ecoinvent 3.11, has been used, as this database contains the most thorough and up-to-date information and its scope coincides with the scope of the project, both geographically and technologically, as well as in terms of time frame. The LCA was modelled using Simapro 10.2.0.0.

Description of system boundaries: According to standard UNE-EN 15804:2012+A2:2020/AC:2021 (SEPTEMBER 2021) and PCR 2019:14 CONSTRUCTION PRODUCTS (version 2.0.1), the system boundaries are from cradle to gate, with modules C1-C4 and module D (A1-A3 + C + D). Life cycle phases A4-A5 and B1-B7 have been excluded from the LCA study.

Process flow diagram



Manufacturing process:

The line produces a homogeneous mixture
and develop sufficient pressure for the plate to emerge continuously.

The aluminum sheets are supplied in coils.

They are treated and painted according to the required finish. Once painted, they are fed into the processing line through composite rollers. These adhere the sheet to the core by compression, leaving a continuous sandwich-shaped panel.

Heat is used to firmly bond both elements (core and sheets) together,
and the excess is cut off with blades.

The continuous panel passes through rollers that flatten it to the desired tolerance,
then it is cooled and straightened to the required flatness.

The protective film is applied
before the panel is cut to size using a side cutter and shears.

Finally, the panels are measured and labelled
before being palletized for delivery.

Data quality

The environmental impact of panels has been calculated. It is based on international standards established for the development of environmental product declarations, such as ISO 14025 for the preparation of environmental product declarations, ISO 14040 and ISO 14044 for the preparation of life cycle assessments, UNE-EN 15804:2012+A2:2020/AC:2021 (SEPTEMBER 2021) and the PCR Product Category Rules - '2019:14 Construction Products' (version 2.0.1).

The data has been collected from 01/01/2024 to 31/12/2024 and is representative of that year. The data on raw material supply, transport to the factory and production (A1-A3) are based on specific consumption data for the Parandones factory. Generic background data sets were used for downstream processes. SimaPro v10.2.0.0 software was used to prepare the life cycle analysis in conjunction with the Ecoinvent 3.11 database. The characterization factors were taken from UNE-EN 15804:2012+A2:2020/AC:2021. Geographical coverage is global. The technological coverage is typical or average. The Characterization Factors correspond to those established in "EN 15804 Reference Package EF 3.1.

Estimations

The principles of modularity and polluter pays have been followed. The following assumptions have been made for this EPD:

- ✓ The manufacturing process for capital goods, spare parts, and/or maintenance with a life span of more than three years is not included.
- ✓ The environmental impact of the general administration infrastructure, offices and headquarters operations is not included.
- ✓ The impact caused by people (common activities, transport to work, etc.) is not considered.
- ✓ The consumption of natural gas for domestic hot water in showers and heating for human comfort is not included.
- ✓ Processes associated with fuel production are intrinsically included in the ECOINVENT database indicators used to compile the LCA.
- ✓ The environmental impact of external transport has been calculated using trucks from the ECOINVENT 3.11 database, EURO 5. These trucks have been selected to represent the most realistic scenario possible.

Cut-off criteria

The ISO 14025 standards and the PCR – 2019:14 CONSTRUCTION PRODUCTS' indicate that life cycle inventory data should include at least 95% of total inputs (materials and energy) for each phase. This cut-off rule does not apply to hazardous materials and substances. This cut-off criterion has not been considered in this study.

Allocations

Where necessary, such as in waste generation and energy consumption, a mass-based allocation has been used.

Greenhouse gases from electricity use in the production phase

The specific electricity mix for low voltage (direct emissions and grid losses) has been used, as considered for the production process.

Type	Amount	Unit
Residual electrical mix	5.00E-01	Kg CO2-eqv/kWh

LCA scenarios and additional technical information**Dismantling/demolition (module C1):**

In this module, energy has been used to dismantle with a radial saw.

Transport (module C2):

With a 100% collection rate, transport is conducted by lorry (EURO 5) over a distance of 50 km.

Waste processing (modules C3 and C4):

A recycling rate of 89% is considered, based on Eurostat statistics on the recovery rate of construction and demolition waste, and the impact of waste separation is also considered. The remaining 11% is considered to end up in landfill.

These percentages are representative of the areas where the product is marketed. Likewise, in module C3, the electricity consumption required to separate the core from the aluminum sheets has been considered.

Recycling potential (module D):

The panel is recycled by melting. Recycling costs and the benefits of replacing virgin materials have been considered.

End-of-life scenarios

PROCESSES	PER DECLARED UNIT	
Collection process expressed by type	7.70E+00	Kg collected separately
	0.00E+00	Kg collected with mixed construction waste
Recovery system specified by type	0.00E+00	Kg for reuse
	6.85E+00	Kg for recycling
	0.00E+00	Kg for energy recovery
Disposal by type	8.47E-01	Kg for final disposal
Assumptions for the transport scenario	16-32 metric tons lorry, EURO5	
	Consumption: 0.03kg/km	
	Distance: 50 km	

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

	PRODUCT STAGE			DISTRIBUTION / INSTALLATION STAGE		USE STAGE							END-OF-LIFE STAGE				BEYOND PRODUCT LIFE CYCLE
	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	ND	ND	ND	ND	ND	ND	ND	ND	ND	X	X	X	X	X
Geography	UE	UE	UE	ND	ND	ND	ND	ND	ND	ND	ND	ND	GLO	GLO	GLO	GLO	GLO
Share of primary data	28,49%			-	-	-	-	-	-	-	-	-	-	-	-	-	-
Variation – products	41.50%			-	-	-	-	-	-	-	-	-	-	-	-	-	-
Variation – sites	00.00%			-	-	-	-	-	-	-	-	-	-	-	-	-	-

ND: Not Declared

EU: European Union

GLO: Global

Product components	Source type	Source	Year	Data type	Percentage of primary GWP-GHG data results for A1-A3
Production of raw materials	Database	Ecoinvent 3.11	2024	Representative secondary data	00,00%
Transportation of raw materials to the production site	Information collected	SAP	2024	Primary data	15,85%
Manufacture of the product	Information collected	SAP	2024	Primary data	12,64%
Total percentage of primary data from GWP-GHG results for A1-A3					28,49%

The share of primary data is calculated based on GWP-GHG results. It is a simplified indicator for data quality that supports the use of more primary data, to increase the representativeness of and comparability between EPDs. Note that the indicator does not capture all relevant aspects of data quality and is not comparable across product categories

VARIATION IN THE IMPACT OF THE PRODUCTS DECLARED IN THE EPD ON THE MAIN INDICATORS

Indicator	Unit	Variation
Climate change - Fossil	kg CO ₂ eq	41.66%
Climate change - Biogenic	kg CO ₂ eq	-220.62%
Climate change - Land use and LU change	kg CO ₂ eq	27.08%
Climate change	kg CO ₂ eq	41.13%
Ozone depletion	kg CFC11 eq	35.18%
Acidification	mol H ⁺ eq	52.56%
Eutrophication, freshwater	kg P eq	27.63%
Eutrophication, marine	kg N eq	54.82%
Eutrophication, terrestrial	mol N eq	55.36%
Photochemical ozone formation	kg NMVOC eq	49.56%
Resource use, minerals, and metals	kg Sb eq	23.12%
Resource use, fossils	MJ	34.46%
Water use	m ³ depriv.	28.08%
GHG-GWP	kg CO ₂ eq	41.13%

ENVIRONMENTAL PERFORMANCE

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. 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).

Potential environmental impact – mandatory indicators according to EN 15804:

RESULTS PER FUNCTIONAL OR DECLARED UNIT							
INDICATOR	UNIT	A1-A3	C1	C2	C3	C4	D
GWP-fossil	kg CO ₂ eq.	9,71E+00	1,85E-03	7,26E-02	8,43E-01	7,72E-02	-8,59E+00
GWP-biogenic	kg CO ₂ eq.	1,01E-01	5,09E-06	1,29E-05	1,51E-01	8,35E-06	-1,65E-02
GWP-luluc	kg CO ₂ eq.	2,58E-02	2,82E-06	2,38E-05	6,91E-04	2,48E-06	-6,36E-02
GWP-total	kg CO ₂ eq.	9,83E+00	1,86E-03	7,27E-02	9,95E-01	7,72E-02	-8,67E+00
ODP	kg CFC 11 eq.	1,85E-07	1,15E-10	1,44E-09	6,99E-09	3,58E-10	-2,75E-07
AP	mol H ⁺ eq.	3,78E-02	1,38E-05	2,27E-04	3,09E-03	6,93E-05	-4,07E-02
EP-freshwater	kg P eq.	2,87E-04	1,29E-07	5,58E-07	2,61E-05	1,05E-07	-2,51E-04
EP-marine	kg N eq.	7,03E-03	1,94E-06	7,56E-05	6,74E-04	3,43E-05	-5,97E-03
EP-terrestrial	mol N eq.	7,83E-02	2,21E-05	8,33E-04	6,18E-03	3,07E-04	-6,61E-02
POCP	kg NMVOC eq.	3,44E-02	7,95E-06	3,56E-04	2,01E-03	1,32E-04	-4,09E-02
ADP-minerals &metals*	kg Sb eq.	2,27E-04	1,16E-07	2,32E-07	1,68E-05	2,96E-08	-4,93E-05
ADP-fossil*	MJ	1,52E+02	2,30E-02	1,02E+00	5,78E+00	2,53E-01	-2,05E+02
WDP	m ³ eq	6,00E+00	2,33E-03	5,68E-03	1,62E-01	-1,76E-01	-4,82E+00

Acronyms	<p>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</p>
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* **Disclaimer:** The results of this impact indicator should be used with caution, as the uncertainties of these results are high or there is limited experience with the indicator.

Potential environmental impact – additional mandatory and voluntary indicators

RESULTS PER FUNCTIONAL OR DECLARED UNIT							
INDICATOR	UNIT	A1-A3	C1	C2	C3	C4	D
GWP-GHG ¹	kg CO ₂ eq.	9,83E+00	1,86E-03	7,27E-02	9,95E-01	7,72E-02	-8,67E+00

Resource use indicators

RESULTS PER FUNCTIONAL OR DECLARED UNIT							
INDICATOR	UNIT	A1-A3	C1	C2	C3	C4	D
PERE	MJ	1.59E+01	7.23E-02	1.73E-02	8.74E-01	1.55E-02	-1.96E+01
PERM	MJ	1.16E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PERT	MJ	1.60E+01	7.23E-02	1.73E-02	8.74E-01	1.55E-02	-1.96E+01
PENRE	MJ	2.10E+01	2.30E-02	1.02E+00	5.79E+00	2.53E-01	-2.05E+02
PENRM	MJ.	1.31E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PENRT	MJ	1.52E+02	2.30E-02	1.02E+00	5.79E+00	2.53E-01	-2.05E+02
SM	kg	3.79E+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
NRSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
FW	m3	1.44E-01	5.75E-05	1.40E-04	4.04E-03	-4.09E-03	-1.21E-01

Acronyms	<p>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</p>
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¹ The indicator includes all greenhouse gases included in GWP-total, but excludes carbon dioxide consumption and emissions, as well as biogenic carbon stored in the product. Therefore, this indicator is equal to the GWP indicator originally defined in standard EN 15804:2012+A1:2013.

Waste production and output flows

Waste production

RESULTS PER FUNCTIONAL OR DECLARED UNIT							
INDICATOR	UNIT	A1-A3	C1	C2	C3	C4	D
Hazardous waste disposed	kg	7.68E-01	2.42E-04	1.47E-03	1.08E-01	2.26E-03	-1.09E+00
Non-hazardous waste disposed	kg	2.15E+01	5.71E-03	3.10E-02	3.07E+00	5.41E+00	-5.24E+01
Radioactive waste disposed	kg	4.42E-04	3.86E-08	3.25E-07	1.42E-05	1.94E-07	-2.14E-04

Output flows

RESULTS PER FUNCTIONAL OR DECLARED UNIT							
INDICATOR	UNIT	A1-A3	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
Material for recycling	kg	2.22E-02	0.00E+00	0.00E+00	6.65E+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
Exported energy, electricity	MJ	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

Information on biogenic carbon content

RESULTS PER FUNCTIONAL OR DECLARED UNIT		
BIOGENIC CARBON CONTENT	UNIT	QUANTITY
Biogenic carbon content in product	kg C	0,00E+00
Biogenic carbon content in packaging	kg C	2,95E-03

Additional LCA results of the product

In this section, the results for 100% recycling and landfilling scenarios are included since the declared scenario for end-of-life stage is a mix of alternatives (i.e., 89% recycling and 11% disposal in landfill):

Recycling 100%:

INDICATOR	UNIT	C1	C2	C3	C4
GWP-fossil	kg CO ₂ eq.	1,85E-03	7,26E-02	8,10E-01	0,00E+00
GWP-biogenic	kg CO ₂ eq.	5,09E-06	1,29E-05	1,58E-01	0,00E+00
GWP-luluc	kg CO ₂ eq.	2,82E-06	2,38E-05	6,94E-04	0,00E+00
GWP-total	kg CO ₂ eq.	1,86E-03	7,27E-02	9,69E-01	0,00E+00
ODP	kg CFC 11 eq.	1,15E-10	1,44E-09	6,39E-09	0,00E+00
AP	mol H ⁺ eq.	1,38E-05	2,27E-04	2,98E-03	0,00E+00
EP-freshwater	kg P eq.	1,29E-07	5,58E-07	2,58E-05	0,00E+00
EP-marine	kg N eq.	1,94E-06	7,56E-05	6,77E-04	0,00E+00
EP-terrestrial	mol N eq.	2,21E-05	8,33E-04	6,11E-03	0,00E+00
POCP	kg NMVOC eq.	7,95E-06	3,56E-04	1,99E-03	0,00E+00
ADP-minerals & metals*	kg Sb eq.	1,16E-07	2,32E-07	1,57E-05	0,00E+00
ADP-fossil*	MJ	2,30E-02	1,02E+00	5,60E+00	0,00E+00
WDP	m ³ eq	2,33E-03	5,68E-03	1,57E-01	0,00E+00
GWP-GHG	kg CO ₂ eq	1,86E-03	7,27E-02	9,69E-01	0,00E+00

Landfill 100%:

INDICATOR	UNIT	C1	C2	C3	C4
GWP-fossil	kg CO ₂ eq.	1,85E-03	7,26E-02	0,00E+00	6,47E-01
GWP-biogenic	kg CO ₂ eq.	5,09E-06	1,29E-05	0,00E+00	6,44E-05
GWP-luluc	kg CO ₂ eq.	2,82E-06	2,38E-05	0,00E+00	1,97E-05
GWP-total	kg CO ₂ eq.	1,86E-03	7,27E-02	0,00E+00	6,47E-01
ODP	kg CFC 11 eq.	1,15E-10	1,44E-09	0,00E+00	2,83E-09
AP	mol H ⁺ eq.	1,38E-05	2,27E-04	0,00E+00	5,54E-04
EP-freshwater	kg P eq.	1,29E-07	5,58E-07	0,00E+00	8,26E-07
EP-marine	kg N eq.	1,94E-06	7,56E-05	0,00E+00	2,76E-04
EP-terrestrial	mol N eq.	2,21E-05	8,33E-04	0,00E+00	2,46E-03
POCP	kg NMVOC eq.	7,95E-06	3,56E-04	0,00E+00	1,07E-03
ADP-minerals & metals*	kg Sb eq.	1,16E-07	2,32E-07	0,00E+00	2,32E-07
ADP-fossil*	MJ	2,30E-02	1,02E+00	0,00E+00	2,02E+00
WDP	m ³ eq	2,33E-03	5,68E-03	0,00E+00	-1,42E+00
GWP-GHG	kg CO ₂ eq	1,86E-03	7,27E-02	0,00E+00	6,47E-01

ABBREVIATIONS

ABBREVIATION	DEFINITION
GENERAL ABBREVIATIONS	
EN	European Norm (Standard)
EF	Environmental Footprint
GPI	General Program Instructions
ISO	International Organization for Standardization
CEN	European Committee for Standardization
CLC	Co-location center
CPC	Central product classification
GHS	Globally harmonized system of classification and labelling of chemicals
GRI	Global Reporting Initiative
SVHC	Substances of Very High Concern
ND	Not Declared
CPC	Central Product Classification
CRU	Components for re-use
CTUe	Comparative Toxic Unit
CU	Capacity utilization
DE	Germany
EEE	Exported electrical energy
EET	Exported thermal energy
EMEA	Europe, Middle East, and Africa
EN	European norm
EoL	End of life
EPD ®	Environmental product declaration
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
Eq.	Equivalent(s)
ET-freshwater	Ecotoxicity, freshwater
EU	European union
FCFC	Full capacity fuel consumption
FW	Use of net fresh water
GWP-biogenic	Global Warming Potential biogenic
GWP-fossil	Global Warming Potential fossil fuels
GWP-GHG	Global Warming Potential greenhouse gases
GWP-luluc	Global Warming Potential land use and land use change

GWP-total	Global Warming Potential total
ABREVIATURA	DEFINICIÓN
HPD	Hearing Protection Device
HT-cancer	Potential Comparative Toxic Unit for humans carcinogenic effects
HT-non-cancer	Potential Comparative Toxic Unit for humans, non-carcinogenic effects
HWD	Hazardous waste disposed
IRP	Ionizing radiation, human health
ISO	International Organization for Standardization
kBq	kilobecquerel

REFERENCES

- General Instruction for the EPD® International System Program. Version 5.0.
- ISO 14020:2000 Eco-labels and environmental declarations. General principles.
- ISO 14025:2010 Environmental labels and declarations. Type III environmental declarations. Principles and procedures.
- ISO 14040:2006 Environmental management. Life cycle analysis. Principles and reference framework.
- ISO 14044:2006 Environmental management. Life cycle assessment. Requirements and guidelines.
- PCR 2019:14 Construction products (EN 15804: A2) version 2.0.1
- UNE-EN 15804:2012+A2:2020/AC:2021 Sustainability in construction. Environmental product declarations. Basic product category rules for construction products.

VERSION HISTORY

Original version of the EPD, 2026-02-03.

ADDITIONAL INFORMATION

For more information about these or other services, please visit our website: <https://www.stacbond.com>
as or contact us by email at epd@stacbond.es.

VERIFICATION STATEMENT CERTIFICATE CERTIFICADO DE DECLARACIÓN DE VERIFICACIÓN

Certificate No. / Certificado nº: EPD12603

CERTINALIA, S.L.U., confirms that independent third-party verification has been conducted of the Environmental Product Declaration (EPD) on behalf of:

CERTINALIA, S.L.U., confirma que se ha realizado verificación de tercera parte independiente de la Declaración Ambiental de Producto (DAP) en nombre de:

ECO BIERZO COMPOSITE, S.L.
Calle Isaac Prado Bodelón, s/n
Polígono Industrial La Rozada
24516 Parandones, Toral de los Vados (León) - SPAIN

for the following product(s):
para el siguiente(s) producto(s):

ECOGREEN COMPOSITE FAÇADE PANELS: FR PANELS AND A2 PANELS
Paneles composite de fachada Ecogreen: Paneles FR y Paneles A2

with registration number **EPD-IES-0027511** in the International EPD® System (www.environdec.com).
con número de registro EPD-IES-0027511 en el Sistema Internacional EPD® (www.environdec.com).

it's in conformity with:
es conforme con:

- **ISO 14025:2010 Environmental labels and declarations. Type III environmental declarations.**
- **General Programme Instructions for the International EPD® System v5.**
- **PCR 2019:14 Construction products (EN 15804+A2) v2.0.**
- **UN CPC 314 Boards and panels.**

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Serial Nº / *Nº Serie:* EPD1260300-E



Carlos Nazabal Alsua
Manager

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