ECO EPD 00001300

EPD Registration n. S-P-02180

Environmental Product Declaration

in accordance with ISO 14025 and EN 15804

Calcium sulphate panel
Fully steel encapsulated and semi-encapsulated
CBL.1/S-CBL.1K/S-CBH/S CBM/S-CBMK/S-CBI28S-CBI31S

Programme:	The International EPD® System, www.environdec.com
Programme operator:	EPD International AB
EPD registration number:	S-P-02180
Publication date:	2020-08-08
Valid until:	2025-08-07

Programme information

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

Product category rules (PCR): Construction products and construction services, 2012:02, version 2.32 valid until 2020-12-31,
PCR review was conducted by: The International EPD® System operated by EPD International AB, Box 210 60, SE-100 31 Stockholm, Sweden
Independent third-party verification of the declaration and data, according to ISO 14025:2006: ☐ EPD process certification ☒ EPD verification
Third party verifier: Marcel Gómez Ferrer, Marcel Gómez Consultoria Ambiental, info@marcelgomez.com 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 from different programmes may not be comparable. EPDs of construction products may not be comparable if they do not comply with EN 15804.

Company information

Owner of the EPD: CBI Europe

Contact: Marrocchini Roberto, email: r.marrocchini@cbi-europe.com

Description of the organisation:
CBI Europe S.p.A. produces technological and innovative systems for a complete interior installation, with passion and precision, for thirty years, worldwide.
The company operates in the production of ceilings in MDF, wood, steel, aluminum, mineral fibre and lightened plaster, partition walls, raised floors.
The technical experience and the continuous comparison, with the demands of designers from different markets, make CBI EUROPE an ideal reference point for those who design new, refined and comfortable interiors, and at the same time CBI EUROPE is technologically advanced in an integrated context, offering a very wide range of systems, products, materials, technical solutions and alternatives that improve work environments of the latest generation.
All construction products of CBI Europe are accompanied by CE marking and are in compliance with European Standard.
The quality of all CBI Europe manufacturing processes is certified to ISO 9001:2015 (registration number IT-17318).

More information: www.cbi-europe.com

Name and location of production site:
CBI Europe
Via Mons. A.O. Romero, 14
Osimo (AN), Italy
T. +39 071 71 08 688
info@cbi-europe.com

Product information

Product name: Calcium sulphate panel fully steel encapsulated and semi-encapsulated

The EPD includes the following products:

- CBL.1/S: calcium sulphate panel fully steel encapsulated dim. 600x600x23 mm
- CBL.1K/S: calcium sulphate panel fully steel encapsulated dim. 600x600x23 mm corner lock
- CBH/S: calcium sulphate panel fully steel encapsulated dim. 600x600x31 mm
- CBM/S: calcium sulphate panel fully steel encapsulated dim. 600x600x29 mm
- CBMK/S: calcium sulphate panel fully steel encapsulated dim. 600x600x29 mm corner lock
- CBI28S: calcium sulphate semi-encapsulated steel panel dim. 600x600x28,5 mm
- CBI31S: calcium sulphate semi-encapsulated steel panel dim. 600x600x30,5 mm

The covering of panel in building is out of the scope of EPD because the application of surface material depend on the customer choice.

Product identification:
This EPD covers the calcium sulphate panel fully steel encapsulated produced by CBI Europe above listed. The products have size 600x600mm, the variability is in thickness (23 or 31 mm).

UN CPC code: 42190

Geographical scope: International

Product description:
CBI Europe's Bare Panels is a raised access flooring that have a calcium sulphate core and are completely encapsulated or semi-encapsulated in 0,5 mm galvanised steel sheet.
The product is created for maximum load and humidity resistance and electrical conductivity. Their reduced thickness means a lower finished floor height while their light weight minimises transport costs and facilitates handling and movement on site.

Technical specification:

Dimension	600x600 mm
Thickness	CBL.1/S and CBL.1K/S: 23 mm CBM/S and CBMK/S: 29 mm CBH/S: 31 mm CBI28S: 28,5 mm CBI31S: 30,5 mm
Density core	1300 kg/mc (+/- 5%)
Life expectancy	25 years
Fire reaction (UNI 13501-1)	A1
Fire resistance (UNI EN 13501-2)	REI 60
Airborne insulation (UNI EN ISO 10848-2)	$D_{n,f,w}$ = 54 dB
Impact sound insulation (UNI EN 140-12/717-1	$L_{n,f,w}$ = 41 dB
Walking Sound Insulation (UNI EN ISO 10140-3, UNI EN ISO 717-2)	ΔL_w = 26 dB

LCA information

Functional unit: 1 m^2 of panel
The study comprises the raw material extraction, raw material transportation, manufacturing, transportation to costumer, installation, end-of-life of product.

Reference service life: 25 years

Time representativeness: primary data refer to 2019 year (electricity residual mix 2018). The generic data has been updated in 2019 (Ecoinvent 3.6)

Database(s) and LCA software used: for the elaboration of data SimaPro 9.1.0.8; the database used is Ecoinvent 3.6 and ELCD database.

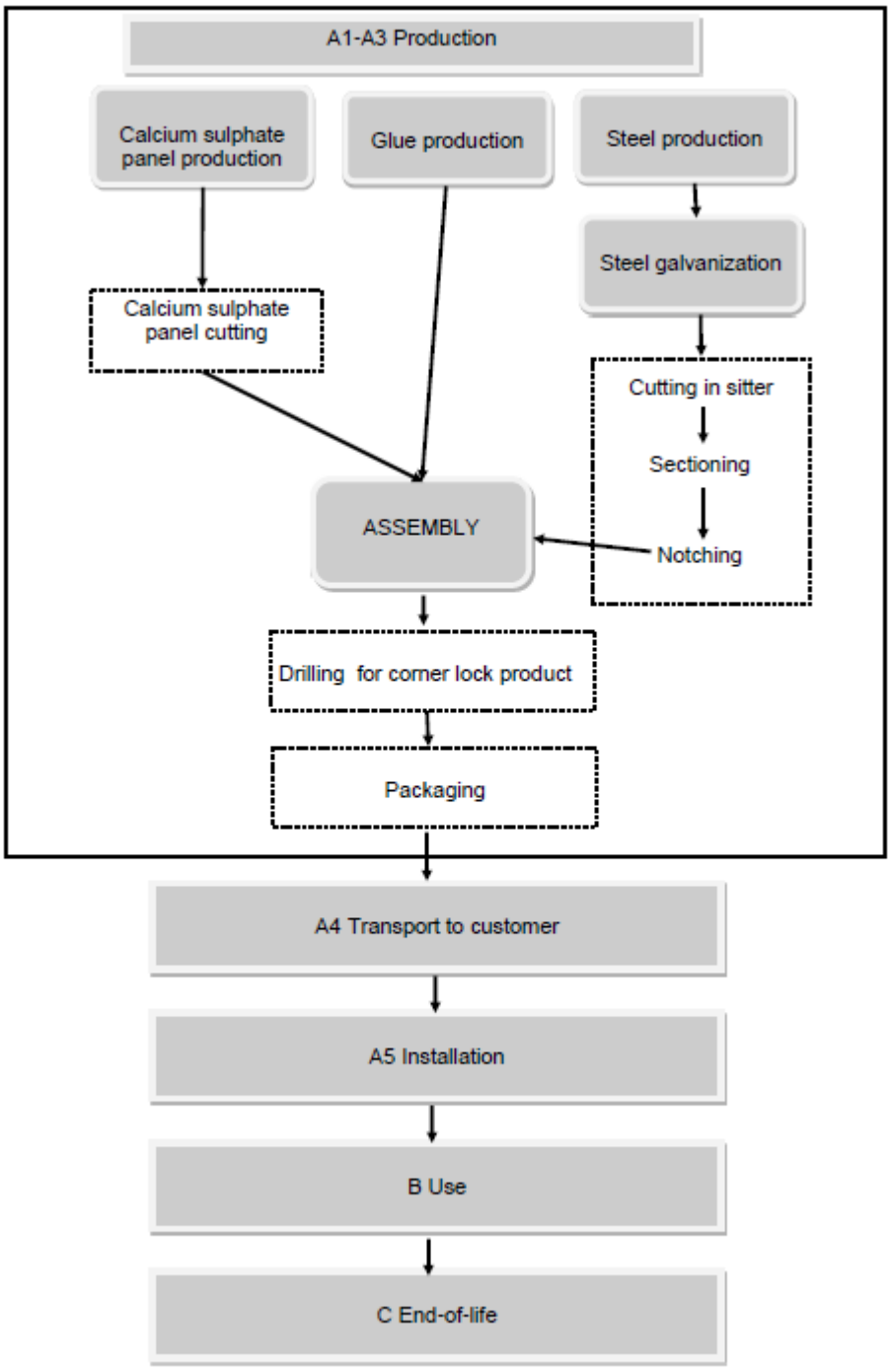
Description of system boundaries: cradle-to-grave (A-B-C) + module D

Excluded lifecycle stages: all life stages are included in the LCA study

More information: www.cbi-europe.com

Name and contact information of LCA practitioners:
Esalex srl – info@esalex.eu
BM and Partner Studio Associato – info@bm-partners.it

System boundary is presented in the flow chart below:


A1-A3 Production
Calcium sulphate panel production
Glue production
Steel production
Steel galvanization
Calcium sulphate panel cutting
Cutting in sitter
Sectioning
Notching
ASSEMBLY
Drilling for corner lock product
Packaging
A4 Transport to customer
A5 Installation
B Use
C End-of-life

Additional information:

- The allocation is applied in the LCA study: when necessary, mass allocation is used (with the exception of the electricity in the production phase in which the economic allocation is applied).
- Electricity: the Italian production mix (2018) is used in production phase. 1 kWh = 0,48 Kg CO2eq.
- Cut-off: at least 95% of the energy and materials used by module has been introduced, as well as 99% of the total use of energy and materials
- The modularity principle, as well as the polluter payer principle have been followed
- The next processes have not been included since its impact is not significant:
    - Environmental impact from infrastructure, construction, production equipment, and tools that are not directly consumed in the production process.
    - Personnel-related impacts, such as transportation to and from work.
- The impact method used are:
    - CML v. 3.06
    - Cumulative energy demand v. 1.00 for resource use
    - EDIP 2003 v. 1.07 for waste production
    - GHG Protocol for biogenic CO_2 v. 1.02
    - AWARE v.1.02 for water footprint.

The verifier and the program operator do not make any claim nor have any responsibility of the legality of the product.

- Modules declared and geographical scope are:

	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	X	X	X	X	X	X	X	X	X	X	X	X
Geography	Italy	Italy	Italy	World	World	World	World	World	World	World	World	World	World	World	World	World	World

- Module A1 – Raw material supply: this module includes the extraction of raw material.
- Module A2 – Transport: this module includes the transportation of raw materials from the production site to the CBI Europe gate
- Module A3 – Manufacturing: this module considers the CBI Europe internal processes, including consumption of energy, resources and packaging. Output flows include production waste and packaging of raw materials. The production process consists in cutting the galvanized steel, modelling it and gluing the calcium sulphate panel with galvanize steel plate. At the end, the product is packed.
- A4 – Transport: this module considers the transport of product to construction site.

PARAMETER	DESCRIPTION	VALUE
Vehicle type used for transport		Truck and ship
Vehicle load capacity		For truck: 16-32 metric ton For ship: 43.000 ton
Fuel type and consumption	Litre of fuel (kg of fuel for ton*km transported)	For truck: 0,0378 diesel, low –sulfur (from Ecoinvent)

		For ship: 0,00252 heavy fuel oil (from Ecoinvent)
Distance to construction site	Km (weighted average)	For truck: 1000,14 For ship: 3332,61
Capacity utilisation (including empty returns)	%	% assumed in Ecoinvent
Bulk density of transported products	Kg/m3	1503,75 (for CBL.1/S)
Volume capacity utilisation factor (factor: = 1 or < 1 or ≥ 1 for compressed or nested packaged products)	/	1

- Module A5 – Construction installation: this module considers the installation of product in the building with use of auxiliary materials.

PARAMETER	DESCRIPTION	VALUE/
Auxiliary materials for installation	Pedestal (galvanized steel) kg	5,94
	PVC washer kg	6,54E-05
	Stringer (galvanized steel) kg	2,22
	PVC washer long kg	0,00028
Use of water	m3	0
Use of other resources	kg	0
Quantitative description of energy type and consumption during the preparation and installation process	Electric energy kWh	0,0056
Direct emissions to ambient air, soil and water	kg	0
Waste materials on the building site, generated by the product's installation; specified by type	Product losses	4%
	Pallet kg	CBL.1S: 0,58 CBHS: 0,78 CBI31S: 0,78
	Cardboard box (average) kg	0,04
	Stripping band (average) kg	0,01
	Cardboard box for pedestal kg	0,28
Output materials (specified by type) as result of waste processing at the construction site e.g. of	Landfill	

collection for recycling, for energy recovery, disposal; specified by route		
Transportation distance	Km	50
Distance to construction site	Not applicable	

- Module B – Use stage: the product doesn't require any use, maintenance, repair, replacement, refurbishment and it isn't necessary use of energy or water for his use.
- Module C1 – Deconstruction/demolition: The product is uninstalled manually and a sucker only is necessary, without the use of energy. For the corner lock product, the use of an electric screwdriver is necessary.
- Module C2 – Transport to waste processing: the product is then transported to disposal; the scenario provides the transport for 50 km.
- Module C3 - Waste processing for reuse, recovery and/or recycling: the product is send to landfill and there isn't any reuse, recovery or recycling.
- Module C4 - Disposal: the product is totally disposed in landfill.

PARAMETER	VALUE / DESCRIPTION
Collection process specified by type	The product is collected mixed with construction waste
Recovery system specified by type	There is no recovery, recycling or reuse
Disposal specified by type	100% landfill
Assumptions for scenario development (e.g. transportation)	16-32 ton truck. Fuel consumption: 25 l/100 Km Distance: 50 km

- Module D - Reuse-Recovery-Recycling potential: Module D calculates the potential environmental benefits of the recycling or reuse of materials. This product has not considerable benefits due to recycling or/and reuse.

Content declaration
CBL.1/S (thickness 23 mm) – CBL.1K/S (thickness 23 mm corner lock)

The CBL.1/S product content declaration is illustrated below.
The results are valid for the products CBL.1/S (33,97 kg/m^2) and CBL.1K/S (33,88 kg/m^2) since the mandatory impacts differ less 10%.

Product components	**Weight, kg**	**Post-consumer material, weight-%**	**Renewable material, weight-%**
Galvanized steel	8,53	85	0
Calcium sulphate panel	25,02	Calcium sulphate: 18% Cellulose fibre: 100%	100
Glue	0,42	0	0
TOTAL	33,97		
Packaging materials	**Weight, kg**	**Weight-% (versus the product)**	
Pallet	0,58	1,71	
Paper box	0,032	0,10	
Plastic bands	0,0065	0,02	
TOTAL	0,62		

There are no SVHC substances in the product more than 0.1 % of weight of the product.

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Environmental performance

Potential environmental impact

Results per functional unit										
PARAMETER		Total	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential (GWP)	Fossil (kg CO_2 eq.)	4,47E+01	2,08E+01	7,01E+00	1,64E+01	0,00E+00	2,92E-01	0,00E+00	1,75E-01	0,00E+00
	Biogenic (kg CO_2 eq.)	1,73E+00	6,48E-01	3,01E-02	1,05E+00	0,00E+00	1,36E-03	0,00E+00	1,43E-03	0,00E+00
	Land use and land transformation (kg CO_2 eq.)	3,91E-02	1,77E-02	2,99E-03	1,82E-02	0,00E+00	1,10E-04	0,00E+00	5,33E-05	0,00E+00
	TOTAL (kg CO_2 eq.)	4,65E+01	2,15E+01	7,05E+00	1,75E+01	0,00E+00	2,93E-01	0,00E+00	1,76E-01	0,00E+00
Depletion potential of the stratospheric ozone layer (ODP) (kg CFC 11 eq.)		5,73E-06	3,17E-06	1,22E-06	1,23E-06	0,00E+00	5,14E-08	0,00E+00	5,85E-08	0,00E+00
Acidification potential (AP) (kg SO_2 eq.)		7,28E-01	4,64E-01	5,84E-02	2,02E-01	0,00E+00	1,48E-03	0,00E+00	1,28E-03	0,00E+00
Eutrophication potential (EP) (kg PO_4^{3-} eq.)		1,44E-01	9,60E-02	8,85E-03	3,86E-02	0,00E+00	2,86E-04	0,00E+00	2,26E-04	0,00E+00
Formation potential of tropospheric ozone (POCP) (kg C_2H_4 eq.)		1,58E-02	5,63E-03	1,66E-03	8,38E-03	0,00E+00	4,55E-05	0,00E+00	5,38E-05	0,00E+00
Abiotic depletion potential – Elements (kg Sb eq.)		7,46E-02	3,98E-02	1,66E-04	3,45E-02	0,00E+00	7,75E-06	0,00E+00	1,64E-06	0,00E+00
Abiotic depletion potential – Fossil resources (MJ, net calorific value)		6,02E+02	3,05E+02	1,02E+02	1,87E+02	0,00E+00	4,32E+00	0,00E+00	4,95E+00	0,00E+00
Water scarcity potential (m^3 eq)		1,12E+01	6,12E+00	3,18E-01	4,57E+00	0,00E+00	1,45E-02	0,00E+00	2,30E-01	0,00E+00

The modules B1-B7 have impacts 0.

Use of resources

Results per functional unit										
PARAMETER	Unit	Total	Tot.A1-A3	A4	A5	C1	C2	C3	C4	D
Primary energy resources – Renewable	Use as energy carrier (MJ)	4,86E+01	2,75E+01	1,08E+00	1,99E+01	0,00E+00	4,86E-02	0,00E+00	4,04E-02	0,00E+00
	Used as raw materials (MJ)	2,89E+01	2,32E+01	0,00E+00	5,69E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
	TOTAL (MJ)	7,75E+01	5,07E+01	1,08E+00	2,56E+01	0,00E+00	4,86E-02	0,00E+00	4,04E-02	0,00E+00
Primary energy resources –	Use as energy carrier (MJ)	6,75E+02	3,58E+02	1,03E+02	2,04E+02	0,00E+00	4,38E+00	0,00E+00	5,00E+00	0,00E+00

Non-renewable	Used as raw materials (MJ)	5,41E+01	5,19E+01	0,00E+00	2,17E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
	TOTAL (MJ)	7,29E+02	4,10E+02	1,03E+02	2,06E+02	0,00E+00	4,38E+00	0,00E+00	5,00E+00	0,00E+00
Secondary material (kg)		1,11E+01	1,06E+01	0,00E+00	4,43E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Renewable secondary fuels (MJ)		0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00

Waste production and output flows

Waste production

Results per functional unit									
PARAMETER	**Total**	**A1-A3**	**A4**	**A5**	**C1**	**C2**	**C3**	**C4**	**D**
Hazardous waste disposed (kg)	1,12E-02	5,74E-03	2,48E-04	5,18E-03	0,00E+00	1,16E-05	0,00E+00	7,47E-06	0,00E+00
Non-hazardous waste disposed (kg)	6,51E+01	9,68E+00	4,21E+00	8,83E+00	0,00E+00	2,05E-01	0,00E+00	4,21E+01	0,00E+00
Radioactive waste disposed (kg)	3,41E-03	2,09E-03	6,83E-04	5,74E-04	0,00E+00	2,88E-05	0,00E+00	3,28E-05	0,00E+00

Output flows

Results per functional unit									
PARAMETER	**Total**	**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	0,00E+00	0,00E+00
Material for recycling (kg)	2,38E+00	2,28E+00	0,00E+00	9,51E-02	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	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	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	0,00E+00

Content declaration

CBH/S (thickness 31 mm) – CBM/S (thickness 29 mm) – CBMK/S (thickness 29 mm corner lock)

The CBH/S product content declaration is illustrated below.
The results are valid for the products CBH/S (43,29 kg/m^2), CBM/S (41,03 kg/m^2) and CBMK/S (40,91 kg/m^2) since the mandatory impacts differ less 10%.

Product components	**Weight, kg**	**Post-consumer material, weight-%**	**Renewable material, weight-%**
Galvanized steel	8,76	85	0
Calcium sulphate panel	34,11	Calcium sulphate: 18% Cellulose fibre: 100%	100
Glue	0,42	0	0
TOTAL	43,29		
Packaging materials	**Weight, kg**	**Weight-% (versus the product)**	
Pallet	0,78	1,80	
Paper box	0,043	0,10	
Plastic bands	0,0087	0,02	
TOTAL	0,83		

There are no SVHC substances in the product more than 0.1 % of weight of the product.

Environmental performance

Potential environmental impact

Results per functional unit										
PARAMETER		Total	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential (GWP)	Fossil (kg CO_2 eq.)	5,01E+01	2,41E+01	8,78E+00	1,66E+01	0,00E+00	3,71E-01	0,00E+00	2,23E-01	0,00E+00
	Biogenic (kg CO_2 eq.)	1,78E+00	6,89E-01	3,77E-02	1,05E+00	0,00E+00	1,73E-03	0,00E+00	1,83E-03	0,00E+00
	Land use and land transformation (kg CO_2 eq.)	4,14E-02	1,91E-02	3,74E-03	1,83E-02	0,00E+00	1,40E-04	0,00E+00	6,79E-05	0,00E+00
	TOTAL (kg CO_2 eq.)	5,19E+01	2,48E+01	8,82E+00	1,77E+01	0,00E+00	3,73E-01	0,00E+00	2,25E-01	0,00E+00
Depletion potential of the stratospheric ozone layer (ODP) (kg CFC 11 eq.)		6,69E-06	3,75E-06	1,53E-06	1,27E-06	0,00E+00	6,54E-08	0,00E+00	7,45E-08	0,00E+00
Acidification potential (AP) (kg SO_2 eq.)		7,69E-01	4,89E-01	7,31E-02	2,04E-01	0,00E+00	1,89E-03	0,00E+00	1,64E-03	0,00E+00
Eutrophication potential (EP) (kg PO_4^{3-} eq.)		1,52E-01	1,01E-01	1,11E-02	3,89E-02	0,00E+00	3,64E-04	0,00E+00	2,88E-04	0,00E+00
Formation potential of tropospheric ozone (POCP) (kg C_2H_4 eq.)		1,68E-02	6,18E-03	2,08E-03	8,42E-03	0,00E+00	5,80E-05	0,00E+00	6,85E-05	0,00E+00
Abiotic depletion potential – Elements (kg Sb eq.)		7,56E-02	4,08E-02	2,08E-04	3,46E-02	0,00E+00	9,88E-06	0,00E+00	2,09E-06	0,00E+00
Abiotic depletion potential – Fossil resources (MJ, net calorific value)		6,82E+02	3,53E+02	1,27E+02	1,90E+02	0,00E+00	5,51E+00	0,00E+00	6,30E+00	0,00E+00
Water scarcity potential (m^3 eq)		1,17E+01	6,37E+00	3,98E-01	4,58E+00	0,00E+00	1,85E-02	0,00E+00	2,92E-01	0,00E+00

The modules B1-B7 have impacts 0.

Use of resources

Results per functional unit										
PARAMETER	Unit	Total	Tot.A1-A3	A4	A5	C1	C2	C3	C4	D
Primary energy resources – Renewable	Use as energy carrier (MJ)	5,02E+01	2,87E+01	1,36E+00	2,00E+01	0,00E+00	6,19E-02	0,00E+00	5,15E-02	0,00E+00
	Used as raw materials (MJ)	3,26E+01	2,68E+01	0,00E+00	5,84E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
	TOTAL (MJ)	8,28E+01	5,55E+01	1,36E+00	2,59E+01	0,00E+00	6,19E-02	0,00E+00	5,15E-02	0,00E+00
Primary energy resources –	Use as energy carrier (MJ)	7,56E+02	4,08E+02	1,29E+02	2,07E+02	0,00E+00	5,58E+00	0,00E+00	6,37E+00	0,00E+00

Non-renewable	Used as raw materials (MJ)	6,69E+01	6,42E+01	0,00E+00	2,68E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
	TOTAL (MJ)	8,23E+02	4,72E+02	1,29E+02	2,10E+02	0,00E+00	5,58E+00	0,00E+00	6,37E+00	0,00E+00
Secondary material (kg)		1,12E+01	1,07E+01	0,00E+00	4,47E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Renewable secondary fuels (MJ)		0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Non-renewable secondary fuels (MJ)		0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Net use of fresh water (m^3)		6,64E-01	3,19E-01	2,30E-02	3,14E-01	0,00E+00	1,05E-03	0,00E+00	7,08E-03	0,00E+00

Waste production and output flows

Waste production

Results per functional unit									
PARAMETER	**Total**	**A1-A3**	**A4**	**A5**	**C1**	**C2**	**C3**	**C4**	**D**
Hazardous waste disposed (kg)	1,15E-02	5,99E-03	3,10E-04	5,19E-03	0,00E+00	1,47E-05	0,00E+00	9,52E-06	0,00E+00
Non-hazardous waste disposed (kg)	7,84E+01	1,19E+01	5,27E+00	9,55E+00	0,00E+00	2,61E-01	0,00E+00	5,14E+01	0,00E+00
Radioactive waste disposed (kg)	3,95E-03	2,42E-03	8,55E-04	5,96E-04	0,00E+00	3,67E-05	0,00E+00	4,18E-05	0,00E+00

Output flows

Results per functional unit									
PARAMETER	**Total**	**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	0,00E+00	0,00E+00
Material for recycling (kg)	2,77E+00	2,66E+00	0,00E+00	1,11E-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	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	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	0,00E+00

Content declaration
CBI31S (thickness 30,5 mm semi-encapsulated steel panel) – CBI28S (thickness 28,5 semi-encapsulated steel panel)

The CBI31S product content declaration is illustrated below.
The results are valid for the products CBI31S (38,91 kg/m^2) and CBI28S (36,81 kg/m^2) since the mandatory impacts differ less 10%.

Product components	**Weight, kg**	**Post-consumer material, weight-%**	**Renewable material, weight-%**
Galvanized steel	4,59	85	0
Calcium sulphate panel	34,11	Calcium sulphate: 18% Cellulose fibre: 100%	100
Glue	0,21	0	0
TOTAL	38,91		
Packaging materials	**Weight, kg**	**Weight-% (versus the product)**	
Pallet	0,78	2,01	
Paper box	0,043	0,11	
Plastic bands	0,0087	0,02	
TOTAL	0,83		

There are no SVHC substances in the product more than 0.1 % of weight of the product.

Environmental performance

Potential environmental impact

Results per functional unit										
PARAMETER		Total	A1-A3	A4	A5	C1	C2	C3	C4	D
Global warming potential (GWP)	Fossil (kg CO_2 eq.)	4,33E+01	1,83E+01	8,06E+00	1,64E+01	0,00E+00	3,34E-01	0,00E+00	2,00E-01	0,00E+00
	Biogenic (kg CO_2 eq.)	1,53E+00	4,54E-01	3,46E-02	1,04E+00	0,00E+00	1,56E-03	0,00E+00	1,64E-03	0,00E+00
	Land use and land transformation (kg CO_2 eq.)	3,38E-02	1,22E-02	3,44E-03	1,80E-02	0,00E+00	1,26E-04	0,00E+00	6,11E-05	0,00E+00
	TOTAL (kg CO_2 eq.)	4,48E+01	1,88E+01	8,10E+00	1,74E+01	0,00E+00	3,36E-01	0,00E+00	2,02E-01	0,00E+00
Depletion potential of the stratospheric ozone layer (ODP) (kg CFC 11 eq.)		5,76E-06	3,00E-06	1,40E-06	1,23E-06	0,00E+00	5,88E-08	0,00E+00	6,70E-08	0,00E+00
Acidification potential (AP) (kg SO_2 eq.)		5,50E-01	2,84E-01	6,71E-02	1,95E-01	0,00E+00	1,70E-03	0,00E+00	1,47E-03	0,00E+00
Eutrophication potential (EP) (kg PO_4^{3-} eq.)		1,06E-01	5,84E-02	1,02E-02	3,71E-02	0,00E+00	3,27E-04	0,00E+00	2,59E-04	0,00E+00
Formation potential of tropospheric ozone (POCP) (kg C_2H_4 eq.)		1,45E-02	4,13E-03	1,91E-03	8,33E-03	0,00E+00	5,22E-05	0,00E+00	6,16E-05	0,00E+00
Abiotic depletion potential – Elements (kg Sb eq.)		5,55E-02	2,15E-02	1,91E-04	3,38E-02	0,00E+00	8,88E-06	0,00E+00	1,88E-06	0,00E+00
Abiotic depletion potential – Fossil resources (MJ, net calorific value)		5,84E+02	2,70E+02	1,17E+02	1,86E+02	0,00E+00	4,95E+00	0,00E+00	5,67E+00	0,00E+00
Water scarcity potential (m^3 eq)		8,75E+00	3,64E+00	3,65E-01	4,47E+00	0,00E+00	1,67E-02	0,00E+00	2,63E-01	0,00E+00

The modules B1-B7 have impacts 0.

Use of resources

Results per functional unit										
PARAMETER	Unit	Total	Tot.A1-A3	A4	A5	C1	C2	C3	C4	D
Primary energy resources – Renewable	Use as energy carrier (MJ)	4,12E+01	2,02E+01	1,24E+00	1,97E+01	0,00E+00	5,57E-02	0,00E+00	4,63E-02	0,00E+00
	Used as raw materials (MJ)	3,21E+01	2,63E+01	0,00E+00	5,82E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
	TOTAL (MJ)	7,33E+01	4,65E+01	1,24E+00	2,55E+01	0,00E+00	5,57E-02	0,00E+00	4,63E-02	0,00E+00
Primary energy resources –	Use as energy carrier (MJ)	6,41E+02	3,09E+02	1,18E+02	2,03E+02	0,00E+00	5,02E+00	0,00E+00	5,73E+00	0,00E+00

Non-renewable	Used as raw materials (MJ)	6,06E+01	5,82E+01	0,00E+00	2,43E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
	TOTAL (MJ)	7,02E+02	3,68E+02	1,18E+02	2,05E+02	0,00E+00	5,02E+00	0,00E+00	5,73E+00	0,00E+00
Secondary material (kg)		7,58E+00	7,28E+00	0,00E+00	3,03E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Renewable secondary fuels (MJ)		0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Non-renewable secondary fuels (MJ)		0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Net use of fresh water (m^3)		5,24E-01	1,87E-01	2,12E-02	3,08E-01	0,00E+00	9,49E-04	0,00E+00	6,36E-03	0,00E+00

Waste production and output flows

Waste production

Results per functional unit									
PARAMETER	**Total**	**A1-A3**	**A4**	**A5**	**C1**	**C2**	**C3**	**C4**	**D**
Hazardous waste disposed (kg)	8,75E-03	3,36E-03	2,85E-04	5,08E-03	0,00E+00	1,32E-05	0,00E+00	8,56E-06	0,00E+00
Non-hazardous waste disposed (kg)	7,16E+01	1,02E+01	4,83E+00	9,29E+00	0,00E+00	2,35E-01	0,00E+00	4,71E+01	0,00E+00
Radioactive waste disposed (kg)	3,48E-03	2,04E-03	7,85E-04	5,77E-04	0,00E+00	3,30E-05	0,00E+00	3,76E-05	0,00E+00

Output flows

Results per functional unit									
PARAMETER	**Total**	**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	0,00E+00	0,00E+00
Material for recycling (kg)	2,68E+00	2,58E+00	0,00E+00	1,07E-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	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	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	0,00E+00

Additional information

No further information is provided.

This document is the revised version of the first emission of EPD (correction of typing errors in the name of products compared to the previous version).

Revision date: 02/09/2020.

References

- General Programme Instructions of the International EPD® System. Version 3.0.
- PCR 2012:01. CONSTRUCTION PRODUCTS AND CONSTRUCTION SERVICES. Version 2.32
- ISO 14040:2006 Environmental management-Life Cycle Assessment - Principles and framework
- ISO 14044:2006 Environmental management-Life Cycle Assessment-Requirements and guidelines
- ISO 14025:2010 Environmental labels and declarations-Type III Environmental Declarations-Principles and procedures
- EN 15804:2012+A1:2013, Sustainability of construction works — Environmental product declarations
- Project report rev. 2 – Panel core made by calcium sulphate

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