

Environmental Product Declaration



In accordance with ISO 14025 and EN 15804:2012+A2:2019 for:

Lightben - Ultra-light composite panel

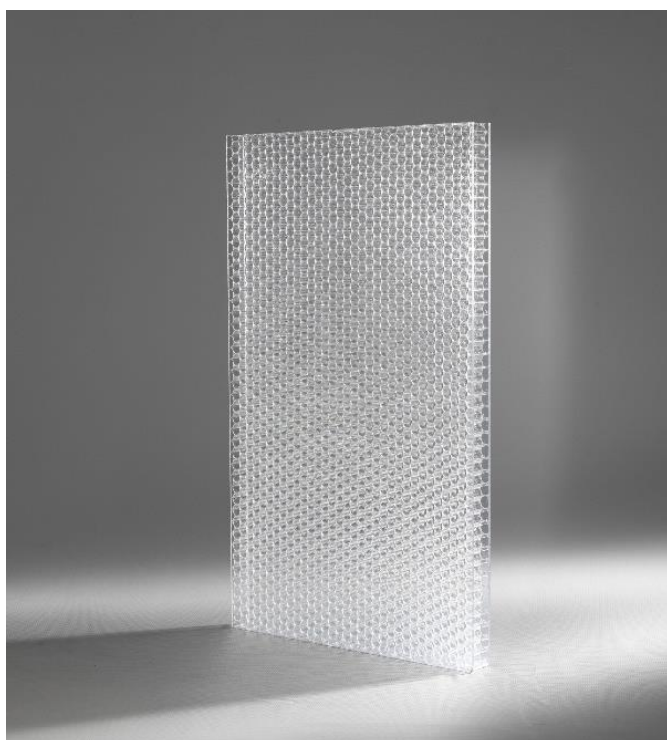
from

Bencore® Srl



Programme:	The International EPD® System, www.environdec.com
Programme operator:	EPD International AB
EPD registration number:	S-P-06099
Publication date:	2022-07-06
Valid until:	2027-06-14

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



Lightben™

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) Version 1.11

PCR review was conducted by: The Technical Committee of the International EPD® System
Review chair: Claudia A. Peña, University of Concepción, Chile. The review panel may be contacted via the Secretariat www.environdec.com/contact.

Life Cycle Assessment (LCA)

LCA accountability: Ambiente SpA

Third-party verification

Independent third-party verification of the declaration and data, according to ISO 14025:2006, via:

☒ EPD verification by accredited certification body

Third-party verification: *IMQ S.p.A.* is an approved certification body accountable for the third-party verification.

The certification body is accredited by: ACCREDIA

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. For further information about comparability, see EN 15804 and ISO 14025.

Company information

Owner of the EPD: Bencore srl

Contact: Office: Via Provinciale Nazzano, 20 – 54033 Carrara – ITALY

Tel: +39 0585 830129 - +39 0585 834449 Fax: +39 0585 835167 - info@bencore.it

Description of the organisation:

Bencore® manufactures and sells materials, systems and products for interior and outdoor architecture, high technological level, top quality and aesthetics. Bencore takes advantage of the most innovative technologies and manufacturing patents to make, in Italy, composite thermos-resins with honeycomb structure, putting together 4 essential elements: lightweight, translucency, rigidity and design. Bencore works together with architectural practices, specifiers and general contractors to supply turnkey solutions worldwide. Bencore® stands for composite translucent panels and transparent panels for architecture and interior design. In few years Bencore® products have become 'cult' materials among the lovers of design and innovative architecture. Translucency, colour, stiffness, beauty and innovative technology are the main features of Bencore® products line. Bencore® offers to architects and designers a wide collection of products to play with when working on partition walls, doors, tables, back-ceiling, raised floor and anything that can be made with a composite panel. In Bencore® the innovation process is constant and each product is a starting-point for new developments: Ecoben Wave™ and Lightben Acoustic™ are the latest answers to market's requests. Today Bencore® is a brand with a strong presence in the market of innovative materials and architectural solutions. Being the reference point for architects and designers looking for innovative materials for interior applications is our mission. Bencore® work starts from the patented composite, translucent panel, characterized by lightweight, stiffness, translucency and design. We offer solutions, advice and support to our very demanding and challenging clients. All this requires a constant investment in R&D, product development, innovative solutions, human resources, marketing and sales network and, above all, care for our clients. Uniqueness, quality, flexibility, solutions: the 4 key-words of our philosophy.

Product-related or management system-related certifications:

LIGHTBEN® products have various product certification like:

Fire reaction

The product Lightben® with PETG skin and thickness 19 mm complies with class 1 of the standard UNI 9177 and with class B1 of the standard DIN 4102-1.

Name and location of production site(s): Office: Via Provinciale Nazzano, 20 – 54033 Carrara – ITALY
and Production: Via S. Colombano, 9 - 54100 Massa – ITALY

Product information

Product name: Lightben®

Product description: Lightben™ is an ultra-light composite panel produced bonding a core made of Polycarbonate transparent cylinders to external layers in Acrylic, Polycarbonate and PETG and in various finishes and several standard colours. The Lightben™ particular core structure creates a partial transparency which varies according to the visual angle, while the external layers allow a variation in transmittance and colour shading of the light. Thanks to these special aesthetical features and an outstanding lightweight and stiffness, Lightben™ is suitable for a wide variety of indoor applications. Easy to cut Lightben™ panel can be finished with standard accessories profiles and systems such as frames, handles, hinges. Lightben™ can also be edged with the same material used for the external layers.



		External layers		
		Polycarbonate	Acrylic	PETG
Core thickness	5 mm	Polycarbonate 5 mm	Acrylic 5 mm	PETG 5 mm
	15 mm	Polycarbonate 15 mm	Acrylic 15 mm	PETG 15 mm
	28 mm	Polycarbonate 28 mm	Acrylic 28 mm	PETG 28 mm

UN CPC code: 369 – Other plastics products

Geographical scope: Production Stage A1 – EU, Production Stage A2 & A3 – Italy, End-of-life Stage – EU.

LCA information

Declared unit: This EPD represents the environmental impacts of 1 m² of Lightben® panel.

Reference service life: the panel can reach a RSL of at least 20 years, but is susceptible to restyling operations, which could reduce its usage time.

Time representativeness: The temporal boundaries of the study refer to the calendar year 2021.

Database(s) and LCA software used: Ecoinvent v3.6 & software OpenLCA version 1.10.3.

Description of system boundaries:

Cradle to gate with modules C1–C4 and module D (A1–A3 + C + D);

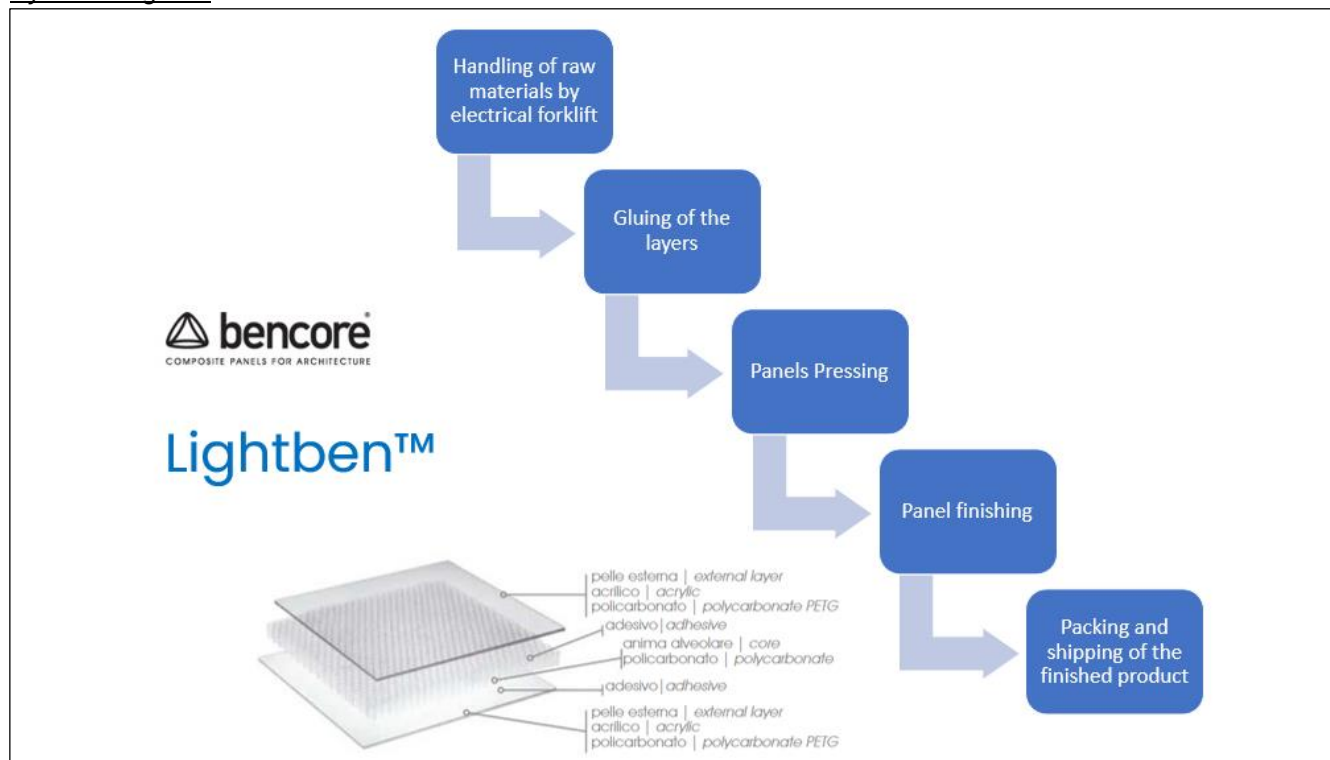
Modules declared, geographical scope, share of specific data (in GWP-GHG indicator) and data variation:

	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	MND	MND	MND	MND	MND	MND	MND	MND	MND	X	X	X	X	X
Geography	EU	I	I	-	-	-	-	-	-	-	-	-	EU	EU	EU	EU	EU
Specific data used	> 90%	> 90%	> 90%														
Variation – products	Not relevant					-	-	-	-	-	-	-	-	-	-	-	-
Variation – sites	Not relevant					-	-	-	-	-	-	-	-	-	-	-	-

NOTE – MND=module not declared; X=module included;

Manufacturing process

System diagram:



All input and output flows are inventoried for each stage of the life cycle included. Flows, materials and energy extracted from the environment and released into it are then combined at each stage to quantify environmental impact indicators.

Cut-off criteria

All the materials entering the plant were included in the model and it was possible to determine the quantities used in the reference year. Diffuse emissions (dust and VOCs) produced during operations are difficult to quantify, but reasonably considered below the cut-off threshold; it was therefore considered correct not to include them in the LCA model. The materials used for packaging for which it was not possible to quantify the values in mass and/or volume (straps, corners, stretch film) were excluded from the system boundaries. The cleaning product of the gluing system was excluded from the study, and represents less than 0.1% of the mass of the materials entering the system.

Data quality

The materials and energy data collected are from the year 2021 including the raw materials and the energy consumption data. The collected data were checked for plausibility and consistency. On the average “Good” and “Very-Good” data quality can be assumed.

Content information

The standard dimensions of the Lightben® panel are 1000 x 3015 mm, while the data shown refer to the declared unit of 1 m².

Product components	Weight [kg/m ²]	Unit Measure	Note
Core (Polycarbonate)	0.35/1.05/1.96*	[kg/m ²]	Thickness 5/15/28 mm respectively
External layer in polycarbonate	4.80	[kg/m ²]	Thickness 2 mm
External layer in acrylic	7.14	[kg/m ²]	Thickness 3 mm
External layer in PETG	5.08	[kg/m ²]	Thickness 2 mm
Glue	0.07	[kg/m ²]	
Packaging materials	Weight [kg/m ²]	Unit Measure	
MDF	6.55E-04	m ³ /m ²	
Polystyrene	1.31E-01	kg/m ²	
Poliflex	5.49E-02	kg/m ²	
Packing tape	4.97E-05	kg/m ²	
Wooden pallet	2.74E-02	Items/m ²	

[*] Weights refer to the 3 different thicknesses used.

The product contains no hazardous substances and no substances of very high concern (SVHC) on the REACH Candidate List/ published by the European Chemicals Agency in a concentration more than 0,1% (by unit weight).

Environmental Information

Potential environmental impact – mandatory indicators according to EN 15804

All results refer to the declared unit of 1 m².

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&metals¹ = Abiotic depletion potential for non-fossil resources;

ADP-fossil¹ = Abiotic depletion for fossil resources potential;

WDP¹ = Water (user) deprivation potential, deprivation-weighted water consumption.

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 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 experienced with the indicator.

Acrylic 5 mm.

Impact category	Reference unit	A1-A3	C1	C2	C3	C4		D
ADP (fossil)	MJ	4.44E+02	0.00E+00	2.86E+01	4.87E-01	2.03E+00		-3.49E+02
ADP (minerals & metals)	kg Sb eq	6.47E-05	0.00E+00	9.19E-06	9.35E-08	5.87E-07		-2.85E-05
AP	Mole H+ eq.	1.13E-01	0.00E+00	1.26E-02	1.71E-04	2.14E-03		-1.41E-01
EP Freshwater	kg P eq	3.71E-03	0.00E+00	1.52E-04	2.75E-06	3.17E-05		-2.53E-03
GWP Biogenic	kg CO2 eq	1.23E+00	0.00E+00	5.53E-03	4.28E-04	1.06E+00		-7.02E-01
GWP Fossil	kg CO2 eq	3.57E+01	0.00E+00	1.94E+00	2.87E-02	8.09E+00		-2.52E+01
GWP Luluc	kg CO2 eq	7.98E-03	0.00E+00	8.00E-04	6.52E-06	5.69E-05		-9.00E-04
GWP Total	kg CO2 eq	3.70E+01	0.00E+00	1.95E+00	2.91E-02	9.15E+00		-2.59E+01
EP Marine	kg N eq	1.47E-02	0.00E+00	4.89E-03	6.46E-05	5.28E-03		-1.83E-02
ODP	kg CFC-11 eq.	2.39E-06	0.00E+00	4.34E-07	6.85E-09	2.52E-08		-8.95E-07
POCP	kg NMVOC	7.58E-02	0.00E+00	1.46E-02	2.03E-04	2.48E-03		-8.43E-02
EP Terrestrial	Mole N eq.	1.53E-01	0.00E+00	5.31E-02	7.05E-04	9.95E-03		-1.78E-01
WDP	m3	3.66E+01	0.00E+00	1.44E-01	2.84E-02	5.18E-01		-6.89E+00
Resource consumption								
Impact category	Reference unit	A1-A3	C1	C2	C3	C4		D
PERT	MJ	2.97E+01	0.00E+00	4.59E-01	4.65E-02	6.82E-02		-2.11E+01
PERM	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00
PERE	MJ	2.97E+01	0.00E+00	4.59E-01	4.65E-02	6.82E-02		-2.11E+01
PENRT	MJ	5.11E+02	0.00E+00	2.93E+01	5.41E-01	2.09E+00		-3.82E+02
PENRM	MJ	2.00E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00
PENRE	MJ	3.12E+02	0.00E+00	2.93E+01	5.41E-01	2.09E+00		-3.82E+02
SM	kg	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
NRSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00
FWT	m ³	1.71E-02	0.00E+00	6.14E-04	5.19E-04	3.90E-03		-2.95E-02
Rifiuti								
Impact category	Reference unit	A1-A3	C1	C2	C3	C4		D
HWD	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00
NHWD	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00
RWD	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00
CRU	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00
MFR	kg	2.43E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00
MER	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00
EE	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00
Indicatori addizionali								
Impact category	Reference unit	A1-A3	C1	C2	C3	C4		D
GWP-GHG	kg CO2 eq	3.52E+01	0.00E+00	1.93E+00	2.70E-02	8.05E+00		-2.42E+01

Acrylic 15 mm.

Impact category	Reference unit	A1-A3	C1	C2	C3	C4		D
ADP (fossil)	MJ	5.20E+02	0.00E+00	3.08E+01	5.31E-01	2.20E+00		-3.82E+02
ADP (minerals & metals)	kg Sb eq	6.72E-05	0.00E+00	9.90E-06	1.02E-07	6.37E-07		-3.08E-05
AP	Mole H+ eq.	1.39E-01	0.00E+00	1.36E-02	1.86E-04	2.32E-03		-1.52E-01
EP Freshwater	kg P eq	4.25E-03	0.00E+00	1.64E-04	3.00E-06	3.42E-05		-2.79E-03
GWP Biogenic	kg CO2 eq	1.25E+00	0.00E+00	5.95E-03	4.66E-04	1.06E+00		-8.00E-01
GWP Fossil	kg CO2 eq	4.28E+01	0.00E+00	2.09E+00	3.13E-02	8.82E+00		-2.81E+01
GWP Luluc	kg CO2 eq	9.42E-03	0.00E+00	8.62E-04	7.11E-06	6.18E-05		-1.04E-03
GWP Total	kg CO2 eq	4.41E+01	0.00E+00	2.10E+00	3.18E-02	9.88E+00		-2.89E+01
EP Marine	kg N eq	1.92E-02	0.00E+00	5.27E-03	7.05E-05	5.74E-03		-2.00E-02
ODP	kg CFC-11 eq.	2.44E-06	0.00E+00	4.67E-07	7.46E-09	2.73E-08		-1.03E-06
POCP	kg NMVOC	9.19E-02	0.00E+00	1.57E-02	2.21E-04	2.69E-03		-9.05E-02
EP Terrestrial	Mole N eq.	2.00E-01	0.00E+00	5.72E-02	7.69E-04	1.08E-02		-1.97E-01
WDP	m3	3.85E+01	0.00E+00	1.55E-01	3.10E-02	5.65E-01		-7.98E+00
Resource consumption								
Impact category	Reference unit	A1-A3	C1	C2	C3	C4		D
PERT	MJ	3.12E+01	0.00E+00	4.94E-01	5.07E-02	7.41E-02		-2.41E+01
PERM	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00
PERE	MJ	3.12E+01	0.00E+00	4.94E-01	5.07E-02	7.41E-02		-2.41E+01
PENRT	MJ	5.94E+02	0.00E+00	3.16E+01	5.90E-01	2.27E+00		-4.18E+02
PENRM	MJ	2.30E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00
PENRE	MJ	3.64E+02	0.00E+00	3.16E+01	5.90E-01	2.27E+00		-4.18E+02
SM	kg	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
NRSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00
FWT	m ³	1.82E-02	0.00E+00	6.61E-04	5.66E-04	4.33E-03		-3.39E-02
Rifiuti								
Impact category	Reference unit	A1-A3	C1	C2	C3	C4		D
HWD	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00
NHWD	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00
RWD	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00
CRU	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00
MFR	kg	2.66E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00
MER	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00
EE	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00
Indicatori addizionali								
Impact category	Reference unit	A1-A3	C1	C2	C3	C4		D
GWP-GHG	kg CO2 eq	4.19E+01	0.00E+00	2.08E+00	2.94E-02	8.77E+00		-2.70E+01

Acrylic 28 mm.

Impact category	Reference unit	A1-A3	C1	C2	C3	C4		D
ADP (fossil)	MJ	6.18E+02	0.00E+00	3.37E+01	5.88E-01	2.42E+00		-4.26E+02
ADP (minerals & metals)	kg Sb eq	7.05E-05	0.00E+00	1.08E-05	1.13E-07	7.03E-07		-3.38E-05
AP	Mole H+ eq.	1.72E-01	0.00E+00	1.48E-02	2.06E-04	2.55E-03		-1.66E-01
EP Freshwater	kg P eq	4.94E-03	0.00E+00	1.79E-04	3.32E-06	3.74E-05		-3.13E-03
GWP Biogenic	kg CO2 eq	1.27E+00	0.00E+00	6.51E-03	5.16E-04	1.06E+00		-9.32E-01
GWP Fossil	kg CO2 eq	5.21E+01	0.00E+00	2.29E+00	3.46E-02	9.77E+00		-3.19E+01
GWP Luluc	kg CO2 eq	1.13E-02	0.00E+00	9.42E-04	7.88E-06	6.81E-05		-1.21E-03
GWP Total	kg CO2 eq	5.33E+01	0.00E+00	2.30E+00	3.52E-02	1.08E+01		-3.28E+01
EP Marine	kg N eq	2.49E-02	0.00E+00	5.76E-03	7.81E-05	6.34E-03		-2.23E-02
ODP	kg CFC-11 eq.	2.51E-06	0.00E+00	5.11E-07	8.27E-09	3.01E-08		-1.20E-06
POCP	kg NMVOC	1.13E-01	0.00E+00	1.72E-02	2.45E-04	2.96E-03		-9.88E-02
EP Terrestrial	Mole N eq.	2.61E-01	0.00E+00	6.25E-02	8.52E-04	1.19E-02		-2.22E-01
WDP	m3	4.09E+01	0.00E+00	1.70E-01	3.43E-02	6.26E-01		-9.41E+00
Resource consumption								
Impact category	Reference unit	A1-A3	C1	C2	C3	C4		D
PERT	MJ	3.31E+01	0.00E+00	5.40E-01	5.61E-02	8.18E-02		-2.81E+01
PERM	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00
PERE	MJ	3.31E+01	0.00E+00	5.40E-01	5.61E-02	8.18E-02		-2.81E+01
PENRT	MJ	7.01E+02	0.00E+00	3.46E+01	6.54E-01	2.50E+00		-4.66E+02
PENRM	MJ	2.70E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00
PENRE	MJ	4.31E+02	0.00E+00	3.46E+01	6.54E-01	2.50E+00		-4.66E+02
SM	kg	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
NRSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00
FWT	m ³	1.95E-02	0.00E+00	7.23E-04	6.27E-04	4.90E-03		-3.98E-02
Rifiuti								
Impact category	Reference unit	A1-A3	C1	C2	C3	C4		D
HWD	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00
NHWD	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00
RWD	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00
CRU	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00
MFR	kg	2.96E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00
MER	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00
EE	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00
Indicatori addizionali								
Impact category	Reference unit	A1-A3	C1	C2	C3	C4		D
GWP-GHG	kg CO2 eq	5.07E+01	0.00E+00	2.27E+00	3.26E-02	9.72E+00		-3.06E+01

Polycarbonate 5 mm.

Impact category	Reference unit	A1-A3	C1	C2	C3	C4		D
ADP (fossil)	MJ	7.87E+02	0.00E+00	2.12E+01	3.40E-01	1.46E+00		-2.46E+02
ADP (minerals & metals)	kg Sb eq	7.65E-05	0.00E+00	6.82E-06	6.52E-08	4.18E-07		-1.73E-05
AP	Mole H+ eq.	2.54E-01	0.00E+00	9.34E-03	1.19E-04	1.53E-03		-8.10E-02
EP Freshwater	kg P eq	7.20E-03	0.00E+00	1.13E-04	1.92E-06	2.35E-05		-1.94E-03
GWP Biogenic	kg CO2 eq	1.16E+00	0.00E+00	4.10E-03	2.98E-04	1.06E+00		-7.45E-01
GWP Fossil	kg CO2 eq	6.91E+01	0.00E+00	1.44E+00	2.00E-02	5.65E+00		-2.16E+01
GWP Luluc	kg CO2 eq	1.60E-02	0.00E+00	5.93E-04	4.55E-06	4.07E-05		-1.00E-03
GWP Total	kg CO2 eq	7.03E+01	0.00E+00	1.45E+00	2.03E-02	6.71E+00		-2.23E+01
EP Marine	kg N eq	4.44E-02	0.00E+00	3.63E-03	4.51E-05	3.74E-03		-1.29E-02
ODP	kg CFC-11 eq.	2.67E-06	0.00E+00	3.22E-07	4.78E-09	1.81E-08		-9.97E-07
POCP	kg NMVOC	1.57E-01	0.00E+00	1.08E-02	1.42E-04	1.78E-03		-4.65E-02
EP Terrestrial	Mole N eq.	4.68E-01	0.00E+00	3.94E-02	4.92E-04	7.12E-03		-1.42E-01
WDP	m3	1.82E+01	0.00E+00	1.07E-01	1.98E-02	3.61E-01		-8.11E+00
Resource consumption								
Impact category	Reference unit	A1-A3	C1	C2	C3	C4		D
PERT	MJ	3.97E+01	0.00E+00	3.40E-01	3.24E-02	4.86E-02		-2.26E+01
PERM	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00
PERE	MJ	3.97E+01	0.00E+00	3.40E-01	3.24E-02	4.86E-02		-2.26E+01
PENRT	MJ	8.74E+02	0.00E+00	2.18E+01	3.78E-01	1.51E+00		-2.73E+02
PENRM	MJ	2.26E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00
PENRE	MJ	6.49E+02	0.00E+00	2.18E+01	3.78E-01	1.51E+00		-2.73E+02
SM	kg	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
NRSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00
FWT	m³	2.42E-02	0.00E+00	4.55E-04	3.62E-04	2.45E-03		-3.33E-02
Rifiuti								
Impact category	Reference unit	A1-A3	C1	C2	C3	C4		D
HWD	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00
NHWD	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00
RWD	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00
CRU	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00
MFR	kg	1.67E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00
MER	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00
EE	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00
Indicatori addizionali								
Impact category	Reference unit	A1-A3	C1	C2	C3	C4		D
GWP-GHG	kg CO2 eq	6.61E+01	0.00E+00	1.43E+00	1.88E-02	5.62E+00		-2.06E+01

Polycarbonate 15 mm.

Impact category	Reference unit	A1-A3	C1	C2	C3	C4		D
ADP (fossil)	MJ	8.62E+02	0.00E+00	2.34E+01	3.84E-01	1.63E+00		-2.79E+02
ADP (minerals & metals)	kg Sb eq	7.90E-05	0.00E+00	7.53E-06	7.37E-08	4.69E-07		-1.96E-05
AP	Mole H+ eq.	2.80E-01	0.00E+00	1.03E-02	1.35E-04	1.71E-03		-9.19E-02
EP Freshwater	kg P eq	7.73E-03	0.00E+00	1.25E-04	2.17E-06	2.60E-05		-2.20E-03
GWP Biogenic	kg CO2 eq	1.17E+00	0.00E+00	4.53E-03	3.37E-04	1.06E+00		-8.44E-01
GWP Fossil	kg CO2 eq	7.62E+01	0.00E+00	1.59E+00	2.26E-02	6.38E+00		-2.45E+01
GWP Luluc	kg CO2 eq	1.75E-02	0.00E+00	6.55E-04	5.14E-06	4.55E-05		-1.13E-03
GWP Total	kg CO2 eq	7.74E+01	0.00E+00	1.60E+00	2.30E-02	7.44E+00		-2.53E+01
EP Marine	kg N eq	4.88E-02	0.00E+00	4.01E-03	5.10E-05	4.20E-03		-1.46E-02
ODP	kg CFC-11 eq.	2.72E-06	0.00E+00	3.55E-07	5.40E-09	2.02E-08		-1.13E-06
POCP	kg NMVOC	1.73E-01	0.00E+00	1.19E-02	1.60E-04	1.99E-03		-5.28E-02
EP Terrestrial	Mole N eq.	5.15E-01	0.00E+00	4.35E-02	5.56E-04	7.96E-03		-1.61E-01
WDP	m3	2.00E+01	0.00E+00	1.18E-01	2.24E-02	4.08E-01		-9.20E+00
Resource consumption								
Impact category	Reference unit	A1-A3	C1	C2	C3	C4		D
PERT	MJ	4.11E+01	0.00E+00	3.76E-01	3.66E-02	5.44E-02		-2.56E+01
PERM	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00
PERE	MJ	4.11E+01	0.00E+00	3.76E-01	3.66E-02	5.44E-02		-2.56E+01
PENRT	MJ	9.57E+02	0.00E+00	2.40E+01	4.27E-01	1.68E+00		-3.09E+02
PENRM	MJ	2.56E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00
PENRE	MJ	7.00E+02	0.00E+00	2.40E+01	4.27E-01	1.68E+00		-3.09E+02
SM	kg	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
NRSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00
FWT	m ³	2.53E-02	0.00E+00	5.02E-04	4.09E-04	2.88E-03		-3.77E-02
Rifiuti								
Impact category	Reference unit	A1-A3	C1	C2	C3	C4		D
HWD	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00
NHWD	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00
RWD	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00
CRU	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00
MFR	kg	1.90E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00
MER	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00
EE	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00
Indicatori addizionali								
Impact category	Reference unit	A1-A3	C1	C2	C3	C4		D
GWP-GHG	kg CO2 eq	7.28E+01	0.00E+00	1.58E+00	2.12E-02	6.35E+00		-2.34E+01
Particulate matter	disease inc.	4.55E-06	0.00E+00	1.38E-07	1.08E-08	1.08E-08		-1.33E-06
Ionising radiation	kBq U-235 eq	2.88E+00	0.00E+00	1.29E-01	4.09E-03	5.99E-03		-9.76E-01
Ecotoxicity, freshwater	CTUe	1.37E+03	0.00E+00	1.85E+01	3.71E-01	1.39E+01		-4.08E+02
Human toxicity, cancer	CTUh	2.64E-08	0.00E+00	1.09E-09	1.38E-11	6.00E-10		-4.95E-09
Human toxicity, non - cancer	CTUh	1.14E-06	0.00E+00	2.22E-08	1.66E-10	2.25E-08		-3.38E-07
Land use	Pt	1.76E+02	0.00E+00	1.27E+01	5.24E-01	8.68E-01		-1.87E+01

Polycarbonate 28 mm.

Impact category	Reference unit	A1-A3	C1	C2	C3	C4		D
ADP (fossil)	MJ	9.61E+02	0.00E+00	2.63E+01	4.41E-01	1.85E+00		-3.22E+02
ADP (minerals & metals)	kg Sb eq	8.23E-05	0.00E+00	8.45E-06	8.47E-08	5.34E-07		-2.26E-05
AP	Mole H+ eq.	3.13E-01	0.00E+00	1.16E-02	1.55E-04	1.95E-03		-1.06E-01
EP Freshwater	kg P eq	8.42E-03	0.00E+00	1.40E-04	2.49E-06	2.92E-05		-2.54E-03
GWP Biogenic	kg CO2 eq	1.19E+00	0.00E+00	5.08E-03	3.87E-04	1.06E+00		-9.75E-01
GWP Fossil	kg CO2 eq	8.54E+01	0.00E+00	1.79E+00	2.60E-02	7.33E+00		-2.83E+01
GWP Luluc	kg CO2 eq	1.93E-02	0.00E+00	7.35E-04	5.91E-06	5.19E-05		-1.31E-03
GWP Total	kg CO2 eq	8.67E+01	0.00E+00	1.79E+00	2.64E-02	8.39E+00		-2.92E+01
EP Marine	kg N eq	5.46E-02	0.00E+00	4.50E-03	5.85E-05	4.80E-03		-1.69E-02
ODP	kg CFC-11 eq.	2.78E-06	0.00E+00	3.99E-07	6.20E-09	2.30E-08		-1.30E-06
POCP	kg NMVOC	1.94E-01	0.00E+00	1.34E-02	1.84E-04	2.26E-03		-6.10E-02
EP Terrestrial	Mole N eq.	5.76E-01	0.00E+00	4.88E-02	6.39E-04	9.06E-03		-1.86E-01
WDP	m3	2.25E+01	0.00E+00	1.32E-01	2.57E-02	4.69E-01		-1.06E+01
Resource consumption								
Impact category	Reference unit	A1-A3	C1	C2	C3	C4		D
PERT	MJ	4.30E+01	0.00E+00	4.22E-01	4.21E-02	6.21E-02		-2.96E+01
PERM	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00
PERE	MJ	4.30E+01	0.00E+00	4.22E-01	4.21E-02	6.21E-02		-2.96E+01
PENRT	MJ	1.06E+03	0.00E+00	2.70E+01	4.90E-01	1.91E+00		-3.57E+02
PENRM	MJ	2.96E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00
PENRE	MJ	7.68E+02	0.00E+00	2.70E+01	4.90E-01	1.91E+00		-3.57E+02
SM	kg	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
NRSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00
FWT	m ³	2.67E-02	0.00E+00	5.64E-04	4.70E-04	3.44E-03		-4.36E-02
Rifiuti								
Impact category	Reference unit	A1-A3	C1	C2	C3	C4		D
HWD	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00
NHWD	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00
RWD	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00
CRU	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00
MFR	kg	2.20E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00
MER	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00
EE	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00
Indicatori addizionali								
Impact category	Reference unit	A1-A3	C1	C2	C3	C4		D
GWP-GHG	kg CO2 eq	8.16E+01	0.00E+00	1.77E+00	2.44E-02	7.29E+00		-2.70E+01

PETG 5 mm.

Impact category	Reference unit	A1-A3	C1	C2	C3	C4		D
ADP (fossil)	MJ	6.83E+02	0.00E+00	2.21E+01	3.58E-01	1.53E+00		-2.07E+02
ADP (minerals & metals)	kg Sb eq	2.05E-03	0.00E+00	7.10E-06	6.86E-08	4.39E-07		-6.30E-04
AP	Mole H+ eq.	1.71E-01	0.00E+00	9.73E-03	1.25E-04	1.60E-03		-5.24E-02
EP Freshwater	kg P eq	9.68E-03	0.00E+00	1.18E-04	2.02E-06	2.45E-05		-2.62E-03
GWP Biogenic	kg CO2 eq	1.12E+00	0.00E+00	4.27E-03	3.14E-04	1.06E+00		-7.18E-01
GWP Fossil	kg CO2 eq	4.23E+01	0.00E+00	1.50E+00	2.10E-02	5.94E+00		-1.27E+01
GWP Luluc	kg CO2 eq	2.47E-02	0.00E+00	6.18E-04	4.79E-06	4.26E-05		-3.43E-03
GWP Total	kg CO2 eq	4.34E+01	0.00E+00	1.51E+00	2.14E-02	7.00E+00		-1.34E+01
EP Marine	kg N eq	3.49E-02	0.00E+00	3.78E-03	4.74E-05	3.92E-03		-9.13E-03
ODP	kg CFC-11 eq.	8.15E-05	0.00E+00	3.35E-07	5.02E-09	1.89E-08		-2.57E-05
POCP	kg NMVOC	1.16E-01	0.00E+00	1.13E-02	1.49E-04	1.86E-03		-3.14E-02
EP Terrestrial	Mole N eq.	3.55E-01	0.00E+00	4.10E-02	5.18E-04	7.46E-03		-9.78E-02
WDP	m3	1.52E+01	0.00E+00	1.11E-01	2.09E-02	3.80E-01		-7.06E+00
Resource consumption								
Impact category	Reference unit	A1-A3	C1	C2	C3	C4		D
PERT	MJ	4.82E+01	0.00E+00	3.55E-01	3.41E-02	5.09E-02		-2.46E+01
PERM	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00
PERE	MJ	4.82E+01	0.00E+00	3.55E-01	3.41E-02	5.09E-02		-2.46E+01
PENRT	MJ	7.56E+02	0.00E+00	2.27E+01	3.97E-01	1.58E+00		-2.29E+02
PENRM	MJ	2.21E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00
PENRE	MJ	5.35E+02	0.00E+00	2.27E+01	3.97E-01	1.58E+00		-2.29E+02
SM	kg	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
NRSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00
FWT	m ³	4.41E-02	0.00E+00	4.74E-04	3.81E-04	2.62E-03		-3.86E-02
Rifiuti								
Impact category	Reference unit	A1-A3	C1	C2	C3	C4		D
HWD	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00
NHWD	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00
RWD	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00
CRU	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00
MFR	kg	1.76E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00
MER	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00
EE	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00
Indicatori addizionali								
Impact category	Reference unit	A1-A3	C1	C2	C3	C4		D
GWP-GHG	kg CO2 eq	4.11E+01	0.00E+00	1.49E+00	1.98E-02	5.91E+00		-1.23E+01

PETG 15 mm.

Impact category	Reference unit	A1-A3	C1	C2	C3	C4		D
ADP (fossil)	MJ	7.58E+02	0.00E+00	2.43E+01	4.02E-01	1.70E+00		-2.40E+02
ADP (minerals & metals)	kg Sb eq	2.05E-03	0.00E+00	7.81E-06	7.71E-08	4.89E-07		-6.40E-04
AP	Mole H+ eq.	1.97E-01	0.00E+00	1.07E-02	1.41E-04	1.78E-03		-6.33E-02
EP Freshwater	kg P eq	1.02E-02	0.00E+00	1.29E-04	2.27E-06	2.69E-05		-2.88E-03
GWP Biogenic	kg CO2 eq	1.14E+00	0.00E+00	4.70E-03	3.53E-04	1.06E+00		-8.16E-01
GWP Fossil	kg CO2 eq	4.94E+01	0.00E+00	1.65E+00	2.36E-02	6.67E+00		-1.56E+01
GWP Luluc	kg CO2 eq	2.61E-02	0.00E+00	6.80E-04	5.38E-06	4.75E-05		-3.57E-03
GWP Total	kg CO2 eq	5.05E+01	0.00E+00	1.66E+00	2.40E-02	7.73E+00		-1.64E+01
EP Marine	kg N eq	3.93E-02	0.00E+00	4.16E-03	5.33E-05	4.38E-03		-1.09E-02
ODP	kg CFC-11 eq.	8.16E-05	0.00E+00	3.69E-07	5.64E-09	2.10E-08		-2.58E-05
POCP	kg NMVOC	1.32E-01	0.00E+00	1.24E-02	1.67E-04	2.07E-03		-3.77E-02
EP Terrestrial	Mole N eq.	4.02E-01	0.00E+00	4.51E-02	5.81E-04	8.30E-03		-1.17E-01
WDP	m3	1.71E+01	0.00E+00	1.22E-01	2.34E-02	4.27E-01		-8.15E+00
Resource consumption								
Impact category	Reference unit	A1-A3	C1	C2	C3	C4		D
PERT	MJ	4.97E+01	0.00E+00	3.90E-01	3.83E-02	5.68E-02		-2.76E+01
PERM	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00
PERE	MJ	4.97E+01	0.00E+00	3.90E-01	3.83E-02	5.68E-02		-2.76E+01
PENRT	MJ	8.38E+02	0.00E+00	2.49E+01	4.46E-01	1.75E+00		-2.65E+02
PENRM	MJ	2.51E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00
PENRE	MJ	5.87E+02	0.00E+00	2.49E+01	4.46E-01	1.75E+00		-2.65E+02
SM	kg	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
NRSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00
FWT	m³	4.52E-02	0.00E+00	5.21E-04	4.28E-04	3.05E-03		-4.30E-02
Rifiuti								
Impact category	Reference unit	A1-A3	C1	C2	C3	C4		D
HWD	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00
NHWD	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00
RWD	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00
CRU	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00
MFR	kg	1.99E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00
MER	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00
EE	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00
Indicatori addizionali								
Impact category	Reference unit	A1-A3	C1	C2	C3	C4		D
GWP-GHG	kg CO2 eq	4.79E+01	0.00E+00	1.64E+00	2.22E-02	6.64E+00		-1.51E+01

PETG 28 mm.

Impact category	Reference unit	A1-A3	C1	C2	C3	C4		D
ADP (fossil)	MJ	8.57E+02	0.00E+00	2.72E+01	4.59E-01	1.92E+00		-2.83E+02
ADP (minerals & metals)	kg Sb eq	2.05E-03	0.00E+00	8.74E-06	8.80E-08	5.55E-07		-6.40E-04
AP	Mole H+ eq.	2.30E-01	0.00E+00	1.20E-02	1.61E-04	2.02E-03		-7.76E-02
EP Freshwater	kg P eq	1.09E-02	0.00E+00	1.45E-04	2.59E-06	3.01E-05		-3.22E-03
GWP Biogenic	kg CO2 eq	1.16E+00	0.00E+00	5.25E-03	4.03E-04	1.06E+00		-9.48E-01
GWP Fossil	kg CO2 eq	5.86E+01	0.00E+00	1.85E+00	2.70E-02	7.62E+00		-1.94E+01
GWP Luluc	kg CO2 eq	2.80E-02	0.00E+00	7.60E-04	6.15E-06	5.38E-05		-3.74E-03
GWP Total	kg CO2 eq	5.98E+01	0.00E+00	1.85E+00	2.74E-02	8.68E+00		-2.03E+01
EP Marine	kg N eq	4.51E-02	0.00E+00	4.65E-03	6.09E-05	4.98E-03		-1.32E-02
ODP	kg CFC-11 eq.	8.17E-05	0.00E+00	4.12E-07	6.45E-09	2.38E-08		-2.60E-05
POCP	kg NMVOC	1.53E-01	0.00E+00	1.39E-02	1.91E-04	2.34E-03		-4.59E-02
EP Terrestrial	Mole N eq.	4.63E-01	0.00E+00	5.05E-02	6.64E-04	9.40E-03		-1.42E-01
WDP	m3	1.96E+01	0.00E+00	1.37E-01	2.68E-02	4.88E-01		-9.58E+00
Resource consumption								
Impact category	Reference unit	A1-A3	C1	C2	C3	C4		D
PERT	MJ	5.16E+01	0.00E+00	4.36E-01	4.38E-02	6.44E-02		-3.16E+01
PERM	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00
PERE	MJ	5.16E+01	0.00E+00	4.36E-01	4.38E-02	6.44E-02		-3.16E+01
PENRT	MJ	9.45E+02	0.00E+00	2.79E+01	5.10E-01	1.98E+00		-3.13E+02
PENRM	MJ	2.91E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00
PENRE	MJ	6.54E+02	0.00E+00	2.79E+01	5.10E-01	1.98E+00		-3.13E+02
SM	kg	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
NRSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00
FWT	m ³	4.65E-02	0.00E+00	5.83E-04	4.89E-04	3.62E-03		-4.89E-02
Rifiuti								
Impact category	Reference unit	A1-A3	C1	C2	C3	C4		D
HWD	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00
NHWD	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00
RWD	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00
CRU	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00
MFR	kg	2.29E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00
MER	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00
EE	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00
Indicatori addizionali								
Impact category	Reference unit	A1-A3	C1	C2	C3	C4		D
GWP-GHG	kg CO2 eq	5.66E+01	0.00E+00	1.83E+00	2.54E-02	7.58E+00		-1.87E+01

Information on biogenic carbon content

Results per functional or declared unit		
BIOGENIC CARBON CONTENT	Unit	QUANTITY
Biogenic carbon content in product	kg C	0
Biogenic carbon content in packaging	kg C	0.657

Note: 1 kg biogenic carbon is equivalent to 44/12 kg CO₂.

References

- ISO 14040:2006 - Environmental management—Life cycle assessment— Principles and framework.
- 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 International: General Programme Instructions of the International EPD® System, version 3.01.
- PCR 2019:14 version 1.11 – Construction products. Date 2021-02-05.
- UNI 9177:2008 - Classificazione di reazione al fuoco dei prodotti combustibili.
- DIN 4102-1 - Fire behaviour of building materials and elements - Classification of building materials - Requirements and testing.

