

# Environmental Product Declaration



THE INTERNATIONAL EPD® SYSTEM



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

## Alterna Luxor shower enclosures

From

**SGDS Gruppen**



Program:

Program operator:

EPD registration number:

Publication date:

Valid until:

The International EPD® System. [www.environdec.com](http://www.environdec.com)

EPD International AB

EPD-IES-0012657

2024-07-31

2029-07-30

*EPD covers multiple products and a list of all products covered by the EPD is located on page 5-6.*

*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](http://www.environdec.com)*



## General information

### Programme information

<b>Programme:</b>	The International EPD® System
<b>Address:</b>	EPD International AB Box 210 60 SE-100 31 Stockholm Sweden
<b>Website:</b>	<a href="http://www.environdec.com">www.environdec.com</a>
<b>E-mail:</b>	<a href="mailto:info@environdec.com">info@environdec.com</a>

<b>Accountabilities for PCR. LCA and independent. third-party verification</b>
<b>Product Category Rules (PCR):</b> Construction Products PCR 2019:14 version 1.3.3
CEN standard EN 15804 serves as the Core Product Category Rules (PCR)
PCR review was conducted by: The Technical Committee of the International EPD® System. See <a href="http://www.environdec.com">www.environdec.com</a> for a list of members. Review chair: Claudia A. Peña. University of Concepción, Chile. The review panel may be contacted via the Secretariat <a href="http://www.environdec.com/contact">www.environdec.com/contact</a> .
<b>Life Cycle Assessment (LCA)</b>
LCA accountability: Fanni Végvári. CarbonZero AB
<b>Third-party verification</b>
Independent third-party verification of the declaration and data. according to ISO 14025:2006. via: <input checked="" type="checkbox"/> EPD verification by the individual verifier
Third-party verifier: Vijay Thakur, Intertek
Approved by: The International EPD® System
Procedure for follow-up of data during EPD validity involves third party verifier: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

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

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

**Company information**

<b>Owner of the EPD</b>	SGDS Gruppen
<b>Contact</b>	SGDS - Beriar Maroof ( <a href="mailto:beriar.maroof@sgdsgruppen.se">beriar.maroof@sgdsgruppen.se</a> )
<b>Description of the organisation</b>	<p>SGDS Gruppen - specialists in collaboration for more efficient business in construction and installation. SGDS Gruppen is the head company of some of Sweden's leading trading companies in construction, sheet metal, tiles and installation. All the companies have long and solid industry experience and provide most of Sweden's craftsmen with materials for various projects. Customers in different companies can also buy support items from the sister companies in the group, and in selected cases, we take joint projects to facilitate the logistics of the supply of goods, which is then often critical for a smooth construction project.</p> <ul style="list-style-type: none"> <li>• Optimera - construction trade for professional carpenters</li> <li>• Dahl – heat. plumbing and sanitary specialist</li> <li>• Bevego - building sheet metal. ventilation and technical insulation</li> <li>• Kakelspecialisten and Konradsson's Tiles - tiles. tiling and bathroom fittings</li> </ul> <p>The company’s focus is on sales and services with direct contact to about 150.000 customers regularly.</p> <p>SGDS Gruppen is owned by Saint-Gobain with a presence in 64 countries and over 190 000 employees worldwide.</p>
<b>Name and location of production site</b>	Carentan-les-Marais. France

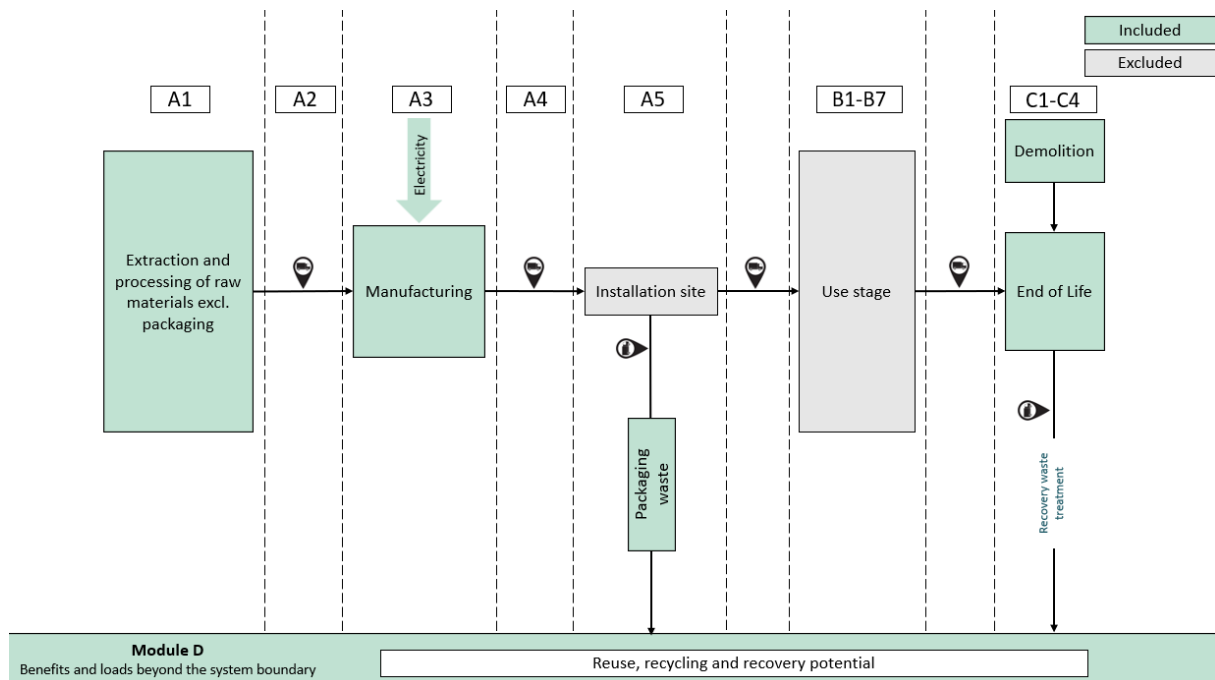


## Product information

<b>Product name</b>	Alterna Luxor shower enclosures
<b>Product identification</b>	Shower enclosure
<b>Product description</b>	This product is made of glass. It excludes the small details such as screws and other material that are used for installation.
<b>Use</b>	Alterna Luxor shower enclosures are exclusive shower walls with Timeless® treated glass without handles and profiles.
<b>UN CPC code</b>	37112 Unworked cast, rolled, drawn or blown glass, in sheets

## LCA information

<b>Declared unit</b>	1 kg of Alterna Luxor shower enclosures
<b>Reference service life</b>	Not applicable
<b>Database(s) and LCA software used</b>	Calculation completed in LCA for Experts v10.7 with an integrated ecoinvent database 3.8
<b>System boundaries</b>	Cradle to gate, with options (modules A4-A5, C1-C4 and D)



### More information

The EPD covers the following range of products from Dahl. All the products have the same material composition per declared unit and are produced in the same way in the same factory, the only difference between the products is the weight.

- Alterna Luxor shower enclosures

Article number	Article name
7330301	AL LUXOR D-VÄGG 8 RAK 75 T-LES
7330302	AL LUXOR D-VÄGG 8 RAK 85 T-LES
7330303	AL LUXOR DVÄGG 10 RAK 75 T-LES
7330304	AL LUXOR DVÄGG 10 RAK 85 T-LES
7376629	AL LUXOR SKÄRMVÄGG 8 96 T-LES
7376630	AL LUXOR SKÄRMVÄGG 8 116 T-LES
7376631	AL LUXOR SKÄRMVÄGG 8 136 T-LES
7330305	AL LUXOR D-HÖRN 78x78 8TL KRO
7330306	AL LUXOR D-HÖRN 78x88 8TL KRO
7330307	AL LUXOR D-HÖRN 88x88 8TL KRO
7330308	AL LUXOR D-HÖRN 78x78 10TL KRO
7330309	AL LUXOR D-HÖRN 78x88 10TL KRO
7330310	AL LUXOR D-HÖRN 88x88 10TL KRO
7376632	AL LUXOR SKÄRMV FS 86 8TL KROM
7376633	AL LUXOR SKÄRMV FS 96 8TL KROM
7376634	AL LUXOR SKÄRMV FS 116 8TL KRO
7330311	AL LUXOR NISCHDÖRR 77 8TL KRO
7330312	AL LUXOR NISCHDÖRR 87 8TL KRO
7330313	AL LUXOR NISCHDÖRR 77 10TL KRO
7330314	AL LUXOR NISCHDÖR 87 10TL KRO
7376939	AL LUXOR SKÄRMVÄGG 8 86 T-LES
7331140	AL LUXOR D-HÖRN 78x78 8TL SVA
7331141	AL LUXOR D-HÖRN 78x88 8TL SVA
7331142	AL LUXOR D-HÖRN 88x88 8TL SVA
7331143	AL LUXOR D-HÖRN 78x78 10TL SVA
7331144	AL LUXOR D-HÖRN 78x88 10TL SVA
7331145	AL LUXOR D-HÖRN 88x88 10TL SVA
7331146	AL LUXOR D-HÖRN 78x78 8TL KOP
7331147	AL LUXOR D-HÖRN 78x88 8TL KOP
7331148	AL LUXOR D-HÖRN 88x88 8TL KOP
7331149	AL LUXOR D-HÖRN 78x78 10TL KOP
7331150	AL LUXOR D-HÖRN 78x88 10TL KOP
7331151	AL LUXOR D-HÖRN 88x88 10TL KOP
7331152	AL LUXOR D-HÖRN 78x78 8TL VIT
7331153	AL LUXOR D-HÖRN 78x88 8TL VIT
7331154	AL LUXOR D-HÖRN 88x88 8TL VIT
7331155	AL LUXOR D-HÖRN 78x78 10TL VIT
7331156	AL LUXOR D-HÖRN 78x88 10TL VIT
7331157	AL LUXOR D-HÖRN 88x88 10TL VIT
7331158	AL LUXOR NISCHDÖRR 77 8TL SVA
7331159	AL LUXOR NISCHDÖRR 87 8TL SVA
7331160	AL LUXOR NISCHDÖRR 77 10TL SVA
7331161	AL LUXOR NISCHDÖRR 87 10TL SVA
7331162	AL LUXOR NISCHDÖRR 77 8TL KOP
7331316	AL LUXOR NISCHDÖRR 87 8TL KOP
7331317	AL LUXOR NISCHDÖRR 77 10TL KOP
7331318	AL LUXOR NISCHDÖRR 87 10TL KOP
7331319	AL LUXOR NISCHDÖRR 77 8TL VIT
7331320	AL LUXOR NISCHDÖRR 87 8TL VIT



7331321	AL LUXOR NISCHDÖRR 77 10TL VIT
7331322	AL LUXOR NISCHDÖRR 87 10TL VIT
7376940	AL LUXOR SKÄRMV FS 86 8TL KROM
7376941	AL LUXOR SKÄRMV FS 86 8TL SVAR
7376942	AL LUXOR SKÄRMV FS 96 8TL SVAR
7376943	AL LUXOR SKÄRMV FS 116 8TL SVA
7376944	AL LUXOR SKÄRMV FS 136 8TL SVA
7376945	AL LUXOR SKÄRMV FS 86 8TL KOPP
7376946	AL LUXOR SKÄRMV FS 96 8TL KOPP
7376947	AL LUXOR SKÄRMV FS 116 8TL KOP
7376948	AL LUXOR SKÄRMV FS 136 8TL KOP
7376949	AL LUXOR SKÄRMV FS 86 8TL VIT
7376950	AL LUXOR SKÄRMV FS 96 8TL VIT
7376951	AL LUXOR SKÄRMV FS 116 8TL VIT
7376952	AL LUXOR SKÄRMV FS 136 8TL VIT
7376973	AL LUXOR SKÄRMV VM 86 8TL KROM
7376974	AL LUXOR SKÄRMV VM 96 8TL KROM
7376977	AL LUXOR SKÄRMV VM 86 8TL SVAR
7376978	AL LUXOR SKÄRMV VM 96 8TL SVAR
7376981	AL LUXOR SKÄRMV VM 86 8TL KOPP
7376982	AL LUXOR SKÄRMV VM 96 8TL KOPP
7376985	AL LUXOR SKÄRMV VM 86 8TL VIT
7376986	AL LUXOR SKÄRMV VM 96 8TL VIT
7333582	AL LUXOR BKVÄGG 8 T-LES 80 VIT
7333579	AL LUXOR BKVÄGG 8 T-LES 80KROM
7333581	AL LUXOR BKVÄGG8 T-LES 80KOPPA
7333580	AL LUXOR BKVÄGG8 T-LES 80SVART
7333578	AL LUXOR BKVÄGG 8 T-LES 80x140

### ***A1. Raw material supply***

This module considers the extraction and processing of all raw materials. The product consists of glass where the materials are supplied from a supplier in France. Data collection by the manufacturing factory for specific data represents the production year of 2023 (January 2023 to January 2024) and the generic data used from datasets and specific EPDs represent the last 4 years as the oldest data is from 2021.

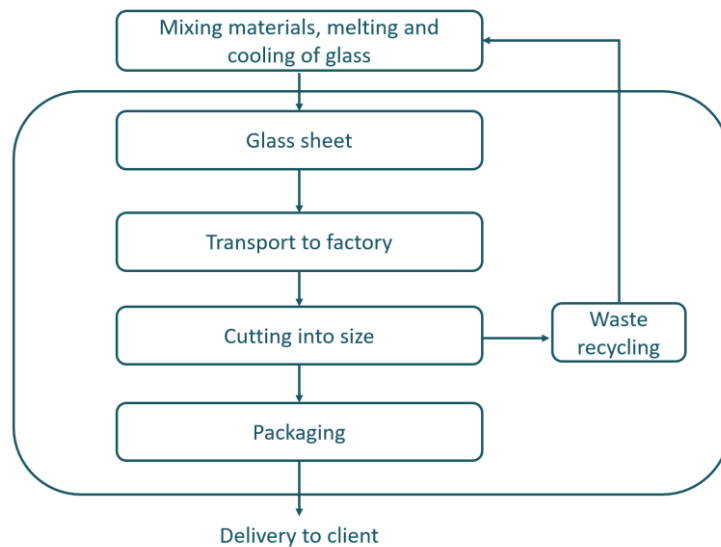
### ***A2. transport to the manufacturer***

This module includes the transportation of raw materials to the manufacturing site, which is 700 km for the glass.

### ***A3. manufacturing***

This module includes all resources used during the production of Alterna Luxor shower enclosure. Only electricity is used during the manufacturing processes. This also includes packaging material, as the finished products are transported to the client packaged in carton and on pallets.

The following figure shows a flow diagram of the main manufacturing processes of the shower enclosures. The glass sheets are bought from a glass suppliers, the materials get transported to the factory where the glass is cut into appropriate sizes before being packaged and sent out to SGDS Gruppen for distribution.



**A4. Transport**

Transportation from the manufacturing site in France to SGDS Gruppen’s distribution center in Sweden and then from the distribution center to the building site is included. The total transportation distance is 2 299 km.

**A5. Construction installation**

This stage is partially included to account for the balancing of the biogenic content in packaging. Therefore, it excludes the installation of the products.

**B1-B7 Use stage**

This stage is not declared.

**C1 Deconstruction/Demolition**

This stage includes the de-construction and/or demolition of the building. Generic data has been used to account for the impact deriving from the demolition of the building and therefore the deconstruction of the shower enclosure.

Dataset	Database	Regional coverage	Time reference
Excavator, 100 kW, construction	Sphera	GLO	2022

**C2 Transport**

This module represents the transport distance to the waste processing facility. The transportation distance is 50 km.

**C3 Waste processing**

This module includes any waste treatment needed. materials being recycled or incinerated.

**C4 Final disposal**

This module includes any material that is landfilled.

The waste rates are based on SCB (2020) as the waste management occurs in Sweden.

Material	Recycling rate	Incineration rate	Landfill rate
Glass	95%	0%	5%

#### *D Benefits and loads beyond the system boundary*

This module includes benefits and loads obtained from energy recovery and/or recycling materials and are calculated according to EN 15804:2012+A2:2019 by the following equation:  $(1 - 0)(1.56 - 1.95 \cdot 1/1) = -0.39$

#### *Omissions of life cycle stages*

The following flows were excluded from the system boundary:

- A1-A3: The plants, production of machines and transportation systems are excluded since the related flows are supposed to be negligible compared to the potential environmental impacts through the life cycle of the product
- A5: This module is only partially included as it accounts for the waste management of the packaging materials
- B1-B7: The use phase is excluded from this study

In addition, the following flows are excluded from the system boundaries:

- Flows related to human activities, such as employee transport

#### *Cut-off criteria:*

All input and output flows in a unit process were considered i.e., taking into account the value of all flows in the unit process and the corresponding LCI where data was available. Data gaps were filled by conservative assumptions with average or generic data. Any assumptions in such case were documented. The use of cut-off criterion on mass inputs and primary energy at the unit process level (1%) and at the information module level (5%).

#### *Assumptions*

The following assumptions are applied in the study:

- The trucks that carry out the transportation in A2, A4 and C2 is assumed to be average truck trailers with a 27 ton payload that run on diesel
- The waste management of the product, as it occurs in Norway where the products are sold, is assumed to be most representative of generic national waste rates of Norway as no specific information was provided

#### *Geographic scope*

This LCA study centers around the production and manufacturing process of Alterna shower enclosures in France.

#### *Allocation*

Allocation criteria are based on mass.

#### *Content declaration*

Product compounds	Weight (kg)	Post-consumer recycled material, weight-% of product	Biogenic material, weight-% of product	Biogenic material, kg C/declared unit
Glass	1	0	0	0
<b>Sum</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>



Packaging materials	Weight, kg	Weight-% (versus the product)	Biogenic material, kg C/declared unit
Cardboard	0.06	6	0.025
Pallet	0.08	8	0.033
<b>Sum</b>	<b>0.14</b>	<b>14%</b>	<b>0.058</b>

### Modules declared and geographical scope

	Product stage			Assembly stage		Use stage							End of life stage				Benefits & loads beyond system boundary
	Raw materials	Transport	Manufacturing	Transport	Assembly	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction demolition	Transport	Waste processing	Disposal	Reuse-Recovery-Recycling-potential
Modules	A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Modules declared	X	X	X	X	X	ND	ND	ND	ND	ND	ND	ND	X	X	X	X	X
Geography	FR	FR	FR	EU	SE	-	-	-	-	-	-	-	SE	SE	SE	SE	SE
Specific data used	5.5%			-	-	-	-	-	-	-	-	-	-	-	-	-	-
Variation products	0%			-	-	-	-	-	-	-	-	-	-	-	-	-	-
Variation sites	0%			-	-	-	-	-	-	-	-	-	-	-	-	-	-

X = module declared, ND = module not declared

FR = France, EU = Europe, SE = Sweden

Results are based on EN 15804:2012+A2:2019 EF3.1.

The specific data used represents the percentage of the impact that derives from specific data and is based on the impact category GWP-GHG. Specific data is collected from module A3.

## Environmental Information

### Core environmental impact indicators – according to EN 15804+A2

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. As module C is included in the EPD, it is discouraging the use of the results of modules A1-A3 without considering the results of module C.

Indicator	Unit	Results per declared unit: 1 kg							
		A1-A3	A4	A5	C1	C2	C3	C4	D
GWP-total	kg CO2 eq	1.51E+00	1.65E-01	2.07E-01	6.07E-04	3.60E-03	9.00E-03	7.55E-04	-8.70E-02
GWP-fossil	kg CO2 eq	1.70E+00	1.65E-01	2.52E-03	6.07E-04	3.60E-03	8.96E-03	7.48E-04	-8.61E-02
GWP-biogenic	kg CO2 eq	-1.91E-01	1.48E-05	2.05E-01	5.36E-08	3.48E-07	2.59E-05	2.38E-06	-1.83E-04
GWP-luluc	kg CO2 eq	6.15E-04	9.31E-06	1.63E-06	3.37E-08	2.08E-07	1.15E-05	4.49E-06	-7.43E-04
ODP	kg CFC-11 eq	1.59E-08	3.85E-08	1.54E-14	1.40E-10	8.37E-10	1.80E-09	2.02E-15	-8.14E-14
AP	mole H+ eq	1.34E-02	4.87E-04	2.35E-05	3.70E-06	1.06E-05	6.43E-05	5.31E-06	-2.05E-04
EP-freshwater	kg P eq	1.31E-05	1.76E-06	2.78E-08	6.38E-09	3.85E-08	4.15E-06	1.70E-09	-9.76E-07
EP-marine	kg N eq	1.74E-03	1.44E-04	7.22E-06	1.49E-06	3.13E-06	2.00E-05	1.37E-06	-1.01E-04
EP-terrestrial	mole N eq	1.87E-02	1.58E-03	9.81E-05	1.63E-05	3.44E-05	2.12E-04	1.51E-05	-1.08E-03
POCP	kg NMVOC eq	5.51E-03	3.58E-04	2.04E-05	4.33E-06	7.81E-06	6.04E-05	4.19E-06	-2.44E-04
ADP-minerals & metals <sup>2</sup>	kg Sb eq	5.54E-07	2.99E-08	1.68E-10	1.08E-10	6.57E-10	4.78E-08	4.85E-11	-1.57E-08
ADP-fossil <sup>2</sup>	MJ	2.76E+01	2.35E+00	3.62E-02	8.53E-03	5.21E-02	1.93E-01	9.87E-03	-9.85E-01
WDP <sup>2</sup>	m3	2.42E-01	2.49E-03	1.49E-02	9.00E-06	6.38E-05	6.19E-03	8.56E-05	-9.33E-03
Acronyms	<p><b>GWP-fossil</b> = Global Warming Potential fossil fuels; <b>GWP-biogenic</b> = Global Warming Potential biogenic; <b>GWP-luluc</b> = Global Warming Potential land use and land use change; <b>ODP</b> = Depletion potential of the stratospheric ozone layer; <b>AP</b> = Acidification potential. Accumulated Exceedance; <b>EP-freshwater</b> = Eutrophication potential. fraction of nutrients reaching freshwater end compartment; <b>EP-marine</b> = Eutrophication potential. fraction of nutrients reaching marine end compartment; <b>EP-terrestrial</b> = Eutrophication potential. Accumulated Exceedance; <b>POCP</b> = Formation potential of tropospheric ozone; <b>ADP-minerals&amp;metals</b> = Abiotic depletion potential for non-fossil resources; <b>ADP-fossil</b> = Abiotic depletion for fossil resources potential; <b>WDP</b> = Water (user) deprivation potential. deprivation-weighted water consumption</p>								

### Additional environmental impact indicators

		Results per declared unit: 1 kg							
Indicator	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
PM	Disease incidence	8.58E-08	2.53E-09	1.60E-10	3.69E-11	5.54E-11	9.42E-10	6.67E-11	-2.24E-09
IRP <sup>1</sup>	kBq U235 eq.	2.85E-01	1.07E-02	2.89E-04	3.86E-05	2.69E-04	2.25E-03	1.20E-05	-7.76E-03
ETP-fw <sup>2</sup>	CTUe	4.19E+00	6.30E-01	1.65E-02	2.29E-03	1.37E-02	4.28E-02	5.68E-03	-4.21E-01
HTP-c <sup>2</sup>	CTUh	4.01E-10	1.01E-11	1.48E-12	3.66E-14	2.48E-13	6.19E-12	1.34E-13	-3.29E-12
HTP-nc <sup>2</sup>	CTUh	1.14E-08	1.83E-10	8.15E-11	6.74E-13	4.12E-12	8.47E-11	5.19E-12	-5.20E-10
SQP <sup>2</sup>	Dimensionless	2.64E+01	2.88E-01	1.08E-02	1.04E-03	6.89E-03	2.65E-01	2.72E-03	-1.01E+01
Acronyms	<b>PM</b> =Particulate matter emissions; <b>IRP</b> =Ionising radiation. human health; <b>ETP-fw</b> = Ecotoxicity (freshwater); <b>ETP-c</b> = Human toxicity. cancer effects; <b>HTP-nc</b> = Human toxicity. non-cancer effects; <b>SQP</b> = Land use related impacts / soil quality								

## Use of resources

		Results per declared unit: 1 kg							
Indicator	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
PERE	MJ	1.18E+01	7.46E-03	9.68E-03	2.23E-05	1.45E-03	1.43E-02	1.72E-03	-1.90E+00
PERM	MJ	1.43E-01	0.00E+00	-1.43E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PERT	MJ	1.19E+01	7.46E-03	9.68E-03	-1.33E-01	1.45E-03	1.43E-02	1.72E-03	-1.90E+00
PENRE	MJ	2.76E+01	2.35E+00	3.62E-02	8.53E-03	5.21E-02	1.93E-01	9.87E-03	-9.85E-01
PENRM	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
PENRT	MJ	2.76E+01	2.35E+00	3.62E-02	8.53E-03	5.21E-02	1.93E-01	9.87E-03	-9.85E-01
SM	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
NRSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
FW	m3	2.76E+01	2.35E+00	3.62E-02	8.53E-03	5.21E-02	1.93E-01	9.87E-03	-9.85E-01
Acronyms	<p><b>PERE</b> = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; <b>PERM</b> = Use of renewable primary energy resources used as raw materials; <b>PERT</b> = Total use of renewable primary energy resources; <b>PENRE</b> = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials; <b>PENRM</b> = Use of non-renewable primary energy resources used as raw materials; <b>PENRT</b> = Total use of non-renewable primary energy re-sources; <b>SM</b> = Use of secondary material; <b>RSF</b> = Use of renewable secondary fuels; <b>NRSF</b> = Use of non-renewable secondary fuels; <b>FW</b> = Use of net fresh water</p>								

## Additional voluntary indicators

		Results per declared unit: 1 kg							
Indicator	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
GWP-GHG <sup>1</sup>	kg CO2 eq	1.71E+00	1.65E-01	5.17E-03	6.07E-04	3.60E-03	8.99E-03	7.55E-04	-8.70E-02
Acronyms	GWP-GHG = global warming potential - greenhouse gases								

## Waste and output flows

### Waste

		Results per declared unit: 1 kg							
Indicator	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
HWD	kg	3.02E-08	2.08E-12	2.00E-11	0.00E+00	2.08E-12	0.00E+00	2.46E-12	-1.08E-08
NHWD	kg	2.24E-01	1.39E-06	1.48E-01	0.00E+00	1.39E-06	9.50E-01	5.00E-01	-1.70E-03
RWD	kg	1.51E-03	3.26E-07	1.82E-06	0.00E+00	3.26E-07	0.00E+00	1.03E-07	-6.37E-05
Acronyms	HW = Hazardous waste disposed; NHW = Non-hazardous waste disposed; RW = Radioactive waste disposed								

<sup>1</sup> The indicator includes all greenhouse gases included in GWP-total but excludes biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. This indicator is thus almost equal to the GWP indicator originally defined in EN 15804:2012+A1:2013.

### Output flows

Results per declared unit: 1 kg									
Indicator	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
CRU	kg	0.00E+00	0.00E+00	8.34E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MFR	kg	0.00E+00	0.00E+00	5.70E-02	0.00E+00	0.00E+00	9.50E-01	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	0.00E+00	8.00E-02
EEE	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-3.40E-01
EET	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.34E-02
Acronyms	CRU = Components for reuse; MFR = Materials for recycling; MER = Materials for energy recovery; EEE = Exported electric energy; ETE = Exported thermal energy								

### Information on biogenic carbon content

Biogenic carbon content	Unit per DU	Amount
Biogenic carbon content in product	kg C per DU	0
Biogenic carbon content in packaging	kg C per DU	5.95E-02

1 kg biogenic carbon is equivalent to 44/12 kg CO<sub>2</sub>.



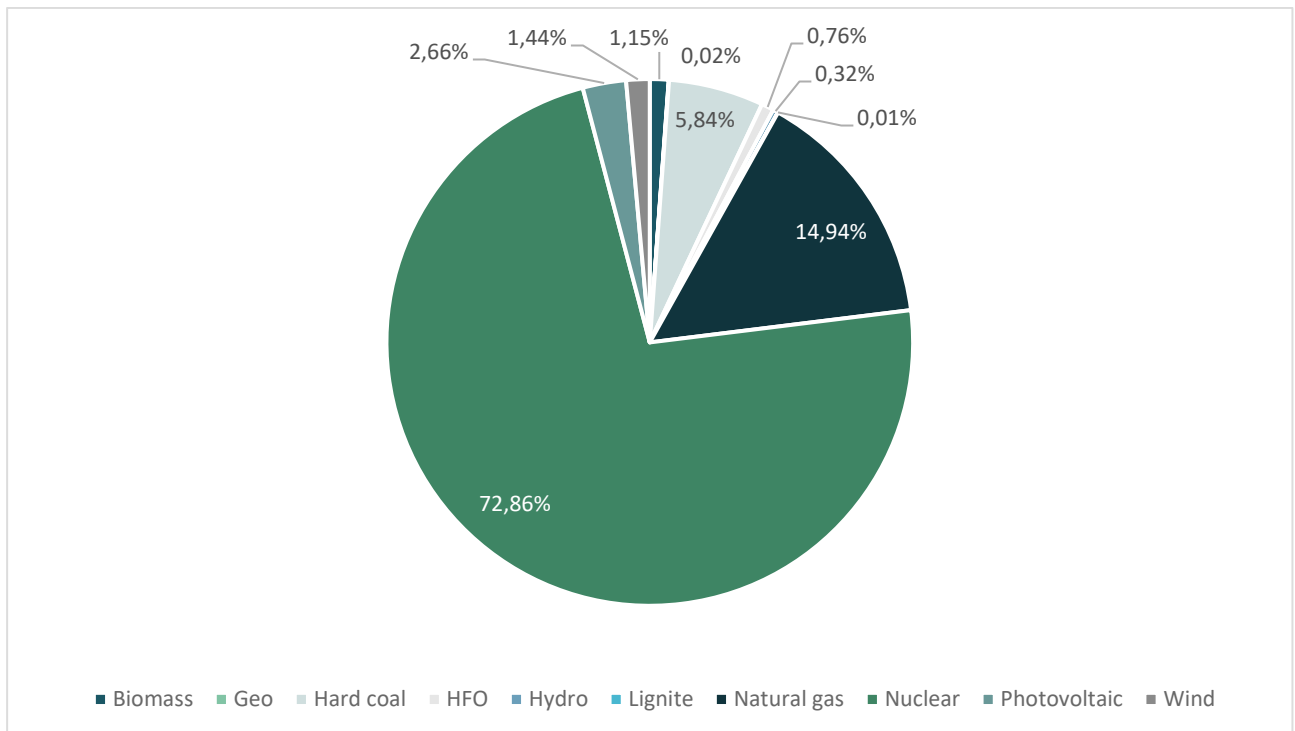
## Disclaimers

ILCD classification	Indicator	Disclaimer
ILCD Type 1	Global warming potential (GWP)	None
	Depletion potential of the stratospheric ozone layer (ODP)	None
	Potential incidence of disease due to PM emissions (PM)	None
ILCD Type 2	Acidification potential. Accumulated Exceedance (AP)	None
	Eutrophication potential. Fraction of nutrients reaching freshwater end compartment (EP-freshwater)	None
	Eutrophication potential. Fraction of nutrients reaching marine end compartment (EP-marine)	None
	Eutrophication potential. Accumulated Exceedance (EP-terrestrial)	None
	Formation potential of tropospheric ozone (POCP)	None
	Potential Human exposure efficiency relative to U235 (IRP)	1
ILCD Type 3	Abiotic depletion potential for non-fossil resources (ADP-minerals&metals)	2
	Abiotic depletion potential for fossil resources (ADP-fossil)	2
	Water (user) deprivation potential. deprivation-weighted	2
	Water consumption (WDP)	2
	Potential Comparative Toxic Unit for ecosystems (ETP-fw)	2
	Potential Comparative Toxic Unit for humans (HTP-c)	2
	Potential Comparative Toxic Unit for humans (HTP-nc)	2
	Potential Soil quality index (SQP)	2
<p><b>Disclaimer 1</b> – This impact category deals mainly with the eventual impact of low dose ionizing radiation on human health of the nuclear fuel cycle. It does not consider effects due to possible nuclear accidents, occupational exposure nor due to radioactive waste disposal in underground facilities. Potential ionizing radiation from the soil, from radon and from some construction materials is also not measured by this indicator.</p> <p><b>Disclaimer 2</b> – The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high or as there is limited experience with the indicator.</p>		

## Additional information

Greenhouse gas emission from the use of electricity in the manufacturing phase.

Residual mix	Unit	Value
<b>Location</b>		France
<b>Electricity mix</b>		Biomass: 1.15% Geothermal: 0.02% Hard coal: 5.84% Heavy Fuel Oil: 0.76% Hydro: 0.32% Lignite: 0.01% Natural gas: 14.94% Nuclear: 72.86% Photovoltaic: 2.66% Wind: 1.44%
<b>Reference year</b>		2022
<b>Source</b>		European Residual Mixes 2022 - Association of Issuing Bodies
<b>GWP-GHG</b>	kg CO <sub>2</sub> -eq. /kWh	0.125



## References

Association of Issuing Bodies	AIB (2023) European Residual Mixes 2022. Ver. 1.0. <a href="https://www.aib-net.org/sites/default/files/assets/facts/residual-mix/2022/AIB_2022_Residual_Mix_Results_inclAnnex.pdf">https://www.aib-net.org/sites/default/files/assets/facts/residual-mix/2022/AIB_2022_Residual_Mix_Results_inclAnnex.pdf</a>
Construction Products PCR 2019:14 version 1.3.3	EPD International (2021) PCR 2019:14 Construction products and construction services. Version 1.3.3
EN 15804:2012+A2:2019	Sustainability of construction works - Environmental product declaration - Core rules for the product category of construction products
GPI	General Programme Instructions of the International EPD® System. Version 4.
ISO 14020:2000	Environmental labels and declarations — General principles
ISO 14025:2010	Environmental labels and declarations - Type III environmental declarations - Principles and procedures
ISO 14044:2006	Environmental management - Life cycle assessment - Requirements and guidelines
SCB – Swedish Statistics	(2020) Treated waste by treatment category and waste category. Every second year 2010 - 2020 <a href="https://www.statistikdatabasen.scb.se/pxweb/en/ssd/START_MI_MI0305/MI0305T003/">https://www.statistikdatabasen.scb.se/pxweb/en/ssd/START_MI_MI0305/MI0305T003/</a> Assessed 2024-02-22.