

# Environmental Product Declaration



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

## Alterna bathroom lighting Ariella / Alterna badrumsbelysning Ariella

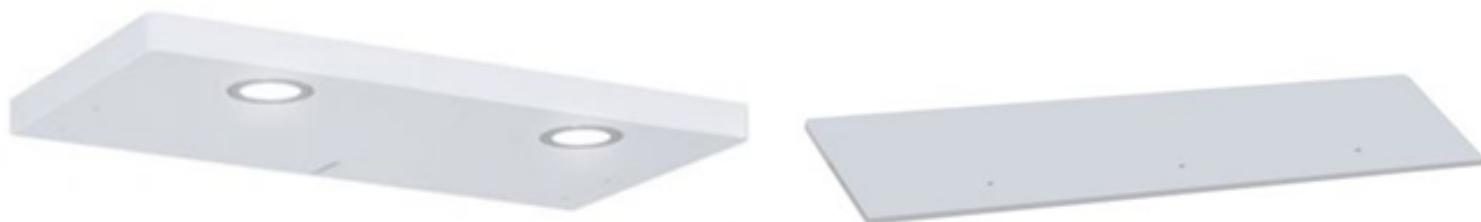
from

***Saint-Gobain Distribution Sweden AB***



Program:	The International EPD System, <a href="http://www.environdec.com">www.environdec.com</a>
Program operator:	EPD International AB
Type of EPD:	EPD on multiple products, based on a representative product
EPD registration number:	EPD-IES-0028743:001
Version date:	2026-02-18
Validity date:	2031-02-17

*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:support@environdec.com">support@environdec.com</a>

### PCR and verification

<b>Product Category Rules (PCR):</b>
CEN standard EN 15804:2012+A2:2019/AC:2021 serves as the Core Product Category Rules (PCR)
Product Category Rules (PCR): Construction Products PCR 2019:14 version 2.0.1
PCR review was conducted by: PCR review was conducted by the Technical Committee of the International EPD® System. See <a href="https://environdec.com/about-us/the-international-epd-system-about-the-system">https://environdec.com/about-us/the-international-epd-system-about-the-system</a> for a list of members. Review chair: Rob Rouwette. 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"/> <b>Individual EPD verification without a pre-verified LCA/EPD tool</b>
Third-party verifier: Stephen Forson, ViridisPride
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 published in different EPD programmes, 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 characterisation factors); and be valid at the time of comparison.

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

## Information about EPD owner

<b>Owner of the EPD</b>	Saint-Gobain Distribution Sweden AB Bryggerivägen 9 168 67 Bromma Stockholm
<b>Contact</b>	SGDS - Beriar Marroof ( <a href="mailto:beriar.marroof@saint-gobain.se">beriar.marroof@saint-gobain.se</a> )
<b>Description of the organisation</b>	<p>Saint-Gobain Distribution Sweden AB - specialists in collaboration for more efficient business in construction and installation. Saint-Gobain Distribution Sweden AB 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>

The company's focus is on sales and services with direct contact to about 150,000 customers regularly.

Saint-Gobain Distribution Sweden AB is owned by Saint-Gobain with a presence in 64 countries and over 190 000 employees worldwide.



## Product information

<b>Product name</b>	Alterna bathroom lighting Ariella / Alterna badrumsbelysning Ariella
<b>Product identification</b>	Bathroom furniture
<b>UN CPC code</b>	3814 - Other furniture n.e.c
<b>Product description</b>	Alterna Ariella bathroom lighting, made from MDF and other smaller plastic and metal components. Lighting rail with LED lamps. Suitable for Alterna Ariella Base Mirror Cabinet / bathroom cabinet. Without power outlet. 15W. The lighting rails come in high-gloss white in three sizes: 45, 60 and 90 cm
<b>Location of production site</b>	Sztumskie Pole, Poland
<b>Technical data</b>	Alterna Ariella bathroom lighting comes in three sizes; 45, 60 and 90 cm. They come without a power outlet. 15W.
<b>Use</b>	Alterna Ariella bathroom lighting are made from MDF and are intended for use in bathrooms as a ramp over cabinets to provide with good lighting over the sink area.

## Content declaration of representative product

Product composition	Amount (kg)	Post-consumer recycled material, mass-% of product	Biogenic material, mass-% of product	Biogenic material <sup>1</sup> , kg C/declared unit
Basecoat	3,26E-02	0	0	0
Glue	1,19E-03	0	0	0
Hardener	9,24E-04	0	0	0
Lacquer	1,02E-02	0	0	0
MDF	7,33E-01	0	30,9	0,309
Plastic	1,82E-01	0	0	0
Silicone	2,23E-02	0	0	0
Solvent	5,54E-03	0	0	0
Steel	1,27E-02	0	0	0
<b>Total</b>	<b>1</b>	<b>0</b>	<b>30,9</b>	<b>0,309</b>
Packaging composition	Weight, kg	Weight-% (versus the product)	Biogenic material, mass-% of packaging	Biogenic material <sup>1</sup> , kg C/declared unit
Cardboard	4,53E-02	4,53	45	0,02
<b>Total</b>	<b>4,53E-02</b>	<b>4,53</b>	<b>45</b>	<b>0,02</b>

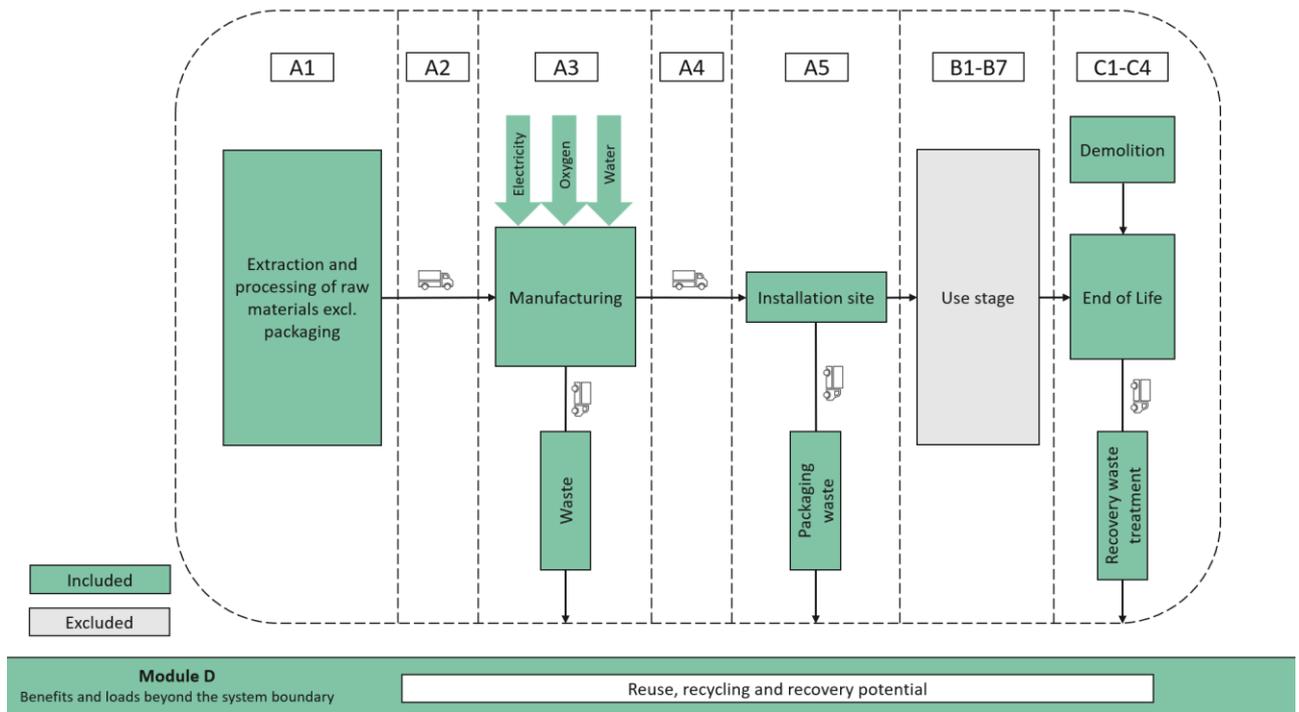
<sup>1</sup> 1 kg biogenic carbon in the product/packaging is equal to 44/12 kg of CO<sub>2</sub> uptake

Hazardous substances from the candidate list of SVHC	EC No.	CAS No.	Mass-% per declared unit
-	-	-	-

In this study, no hazardous or toxic materials or substances are included in the product that are in the candidate list of Substances of Very High Concern (SVHCs) which exceeds the limits for registration with the European Chemicals Agency (i.e., if the substance constitutes more than 0.1% of the weight of the product or any component of the product, if applicable).

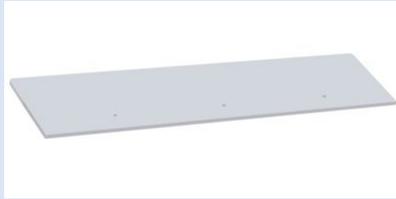
### LCA information

<b>Declared unit</b>	1 kg of Alterna Ariella bathroom lighting
<b>Reference service life</b>	Not applicable, but technical lifetime is 15 years.
<b>Time representativeness</b>	The data used to model product manufacturing correspond to 2024. The data from generic databases are from 2021 – 2024. No data used is older than 5 years.
<b>Geographical scope</b>	Modules A1-A3 are representative of Europe and A4-A5, C1-C4 and D Sweden
<b>Database(s) and LCA software used</b>	Calculation completed in LCA for Experts v10.9.1.19 with an integrated ecoinvent database 3.11
<b>System boundaries</b>	Cradle to gate, with options (A1-A3, A4-A5, C1-C4 & D)
<b>Process flow diagram</b>	



### **More information**

The EPD covers the following products in the table below. For more technical data, please visit the specific link to the products' website. The representative product is represented by bold text.

Article number	Product name	Technical data	Product picture	Link to website
8934469	AL ARIELLA BAS LJUSRAMP 45 VIT	450 mm long 255 mm wide 18 mm thick 4200 K, 15 W, 230 V		<a href="#">8934469</a>
<b>8974268</b>	<b>AL ARIELLA BAS LJUSRAMP 60 VIT</b>	<b>600 mm long 255 mm wide 22 mm thick 4200 K, 15 W, 230 V</b>		<a href="#">8974268</a>
8974269	AL ARIELLA BAS LJUSRAMP 90 VIT	900 mm long 255 mm wide 30 mm thick 4200 K, 15 W, 230 V		<a href="#">8974269</a>
8934733	AL ARIELLA SLIM LJUSRAMP45 VIT	450 mm long 200 mm wide 100 mm thick 4000 K		<a href="#">8934733</a>
8934734	AL ARIELLA SLIM LJUSRAMP60 VIT	600 mm long 200 mm wide 100 mm thick 4000 K		<a href="#">8934734</a>
8934735	AL ARIELLA SLIM LJUSRAMP90 VIT	900 mm long 200 mm wide 100 mm thick 4000 K		<a href="#">8934735</a>
8934736	AL ARIELL SLIM LJUSRAMP120 VIT	1200 mm long 200 mm wide 100 mm thick 4000 K		<a href="#">8934736</a>

### ***A1, Raw material supply***

This module considers the extraction and processing of all raw materials, energy, and transportation which occur upstream to the studied manufacturing process. The product mainly consists of MDF and other smaller plastic and metal components. Generic data has been used to model the production of the materials that make up the products.

### ***A2, transport to the manufacturer***

The raw materials are transported to the manufacturing site where the production takes place. Specific data from the manufacturers' suppliers has been considered.

**A3, manufacturing**

This module includes the assembly of Alterna Ariella bathroom lighting manufactured in Poland. During the production processes electricity, oxygen and water is used. It is assumed that the inputs and outputs from this module are distributed equally across the products per declared unit as the processes are the same across all products. This module also includes the packaging materials which are used to transport the finished products to the distribution center. The packaging material consists of cardboard. Data has been collected by the manufacturer from the production year 2024, the full 12 months from January 2024 to December 2024. This module also includes the transportation between the manufacturing factory in Poland to Saint-Gobain distribution centers in Sweden, which is calculated using Google Maps.

Transportation type	Distance (km)
Ship	55
Truck	575

Electricity used in manufacturing:

The electricity used in the modelling is based on the energy mix of Poland from Association of Issuing Bodies (2023). The GWP-GHG values for the manufacturing stage impacts are 0,071 kg CO<sub>2</sub>-eq./kWh.

**A4, Transport**

This stage includes transportation from Saint-Gobain’s distribution centers out to the installation sites. The transportation distance to the installation sites is based on an average representative transportation of 350 km.

Scenario information	Unit (expressed per declared unit)
Fuel type and consumption of vehicle or vehicle type used for transport e.g. long distance truck, boat etc.	Average truck trailer with a 27 t payload and 0,019 l/tkm diesel
Distance	350 km
Capacity utilization (including empty returns)	61% for truck
Volume capacity utilization factor (factor: =1 or <1 or 1 for compressed or nested packaged products)	Not applicable

**A5, Construction installation**

It has been assumed that the installation is done by hand and therefore has negligible impact. This stage also includes the waste management of the packaging that arises on the installation site. The waste rates of the different packaging materials are based on Swedish Statistics (SCB, 2020) as the waste management occurs in Sweden.

Material	Recycling (%)	Incineration (%)	Landfill (%)
Cardboard	0	100	0

**B1-B7 Use stage**

This stage is not declared.

### ***C1 Deconstruction/Demolition***

This stage includes the de-construction of Alterna Ariella mirror cabinet. The deconstruction of the products is modelled according to the default values from Table 4 in PCR 2019:14 version 2.0.1 for modelling the end-of-life scenarios. The modelling consists of usage of diesel as stated in the table below.

Dataset	Amount	Database	Geographical reference	Time reference
diesel, burned in building machine	1,1 kWh	ecoinvent 3.11	GLO	2024

### ***C2 Transport***

This module represents the transport distance to the waste processing facility. It is assumed that the transportation distance to the waste processing facility is 50 km.

### ***C3 Waste processing***

This module includes any waste treatment needed from recycling and incineration.

### ***C4 Final disposal***

This module includes any material that is landfilled.

Processes	Unit (expressed per declared unit)
Collection process specified by type	1 kg collected
	0 kg collected with mixed construction waste
Recovery system specified by type	0 kg for re-use
	0,065 kg for recycling
	0,934 kg for energy recovery
Disposal specified by type	0,000634 kg product or material for final deposition
Assumptions for scenario development, e.g. transportation	The transportation is modelled with an average truck trailer with a 27 t payload and 0,019 t/km

### ***100% scenarios***

The 100% scenarios are based on PCR 2019:14 version 2.0.1 to complement other possible end-of-life processes. The suggested processes in table 4 of the PCR were used when modelling as well as additional appropriate waste treatment processes. Each scenario is represented by the materials being separated at collection of the waste and being treated in the respective waste management. For the 100% incineration scenario, the metals and inert materials are not included in the total weight as this is considered a non-realistic scenario.

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

This module includes loads and benefits obtained from energy recovery and/or recycling materials.

### *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
- **B1-B7:** The use phase of the products is not included

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

- Flows related to human activities, such as employee transport

### *Cut-off criteria*

The following procedures were followed for the exclusion of inputs and output.

- 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 cases 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%)

All hazardous and toxic materials and substances are included in the inventory, and the cut-off rules do not apply.

### *Allocation*

Allocation criteria are based on mass.

**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	EU	EU	PL	SE	SE	-	-	-	-	-	-	-	SE	SE	SE	SE	SE
Specific data used	57,9%*			-	-	-	-	-	-	-	-	-	-	-	-	-	-
Variation products	<10%			-	-	-	-	-	-	-	-	-	-	-	-	-	-
Variation sites	0%			-	-	-	-	-	-	-	-	-	-	-	-	-	-

\*The specific data is based on the amount of impact that derives from the impact indicator GWP-GHG for modules A1-A3.

Declaration of data sources, reference years, and share of primary data:

Process	Source type	Source	Reference year	Data category	Share of primary data, of GWP-GHG results for A1-A3
Manufacturing of product	Collected data	EPD owner	2021-2024	Primary data	56,6%
Transport of components to production site	Collected data	EPD owner	2021-2022	Primary data	0,6%
Transport of product to SGDS	Collected data	EPD owner	2021-2022	Primary data	0,7%
Production of components	Database	Ecoinvent v3.11, Sphera	2010-2024	Representative generic data	0%
Production of packaging	Database	Ecoinvent v3.11, Sphera	2021-2024	Representative generic data	0%
Other processes	Database	Ecoinvent v3.11, Sphera	2021-2024	Representative generic data, proxy data	0%
Total share of primary data, of GWP-GHG results for A1-A3	57,9%				

Summary of data quality:

The data quality detailed above is considered being good as majority of the data has been collected by the manufacturer, but the datasets used represent a good geographical scope due to unavailable datasets for the raw materials. Around half of the impacts derive from the raw materials, which is not considered primary data, hence the share of primary data of GWP-GHG results for A1-A3 is moderate.

## Environmental Information

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.

### Mandatory impact category indicators according to EN 15804, EF 3.1

Results per declared unit: 1 kg									
Indicator	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
GWP-total	kg CO2 eq	2,98E+00	2,89E-02	7,61E-02	3,62E-04	3,94E-03	1,35E-02	5,86E-01	-1,81E-01
GWP-fossil	kg CO2 eq	3,16E+00	2,85E-02	1,79E-03	3,62E-04	3,89E-03	1,26E-02	4,73E-01	-1,82E-01
GWP-biogenic	kg CO2 eq	-1,78E-01	6,81E-05	7,43E-02	4,02E-08	9,31E-06	9,37E-04	1,13E-01	3,06E-03
GWP-luluc	kg CO2 eq	2,44E-03	2,92E-04	4,90E-06	3,71E-08	3,99E-05	1,25E-05	4,22E-06	-2,42E-03
ODP	kg CFC-11 eq	1,61E-06	4,71E-15	8,87E-15	5,38E-12	6,43E-16	1,36E-10	2,89E-14	-6,70E-13
AP	mole H+ eq	9,62E-03	6,16E-05	1,85E-05	3,24E-06	8,42E-06	5,25E-05	4,89E-05	-1,93E-04
EP-freshwater	kg P eq	2,73E-04	7,64E-08	2,42E-09	1,17E-08	1,04E-08	2,26E-06	3,38E-09	-2,88E-07
EP-marine	kg N eq	2,54E-03	2,72E-05	6,82E-06	1,51E-06	3,72E-06	2,51E-05	1,06E-05	-5,75E-05
EP-terrestrial	mole N eq	2,76E-02	2,92E-04	8,45E-05	1,65E-05	3,99E-05	1,92E-04	2,31E-04	-6,32E-04
POCP	kg NMVOC eq	8,45E-03	5,56E-05	1,79E-05	4,94E-06	7,60E-06	6,63E-05	3,14E-05	-1,59E-04
ADP-minerals & metals <sup>2</sup>	kg Sb eq	4,99E-06	1,89E-09	1,21E-10	1,29E-10	2,58E-10	5,79E-08	3,08E-10	-1,33E-07
ADP-fossil <sup>2</sup>	MJ	4,81E+01	3,63E-01	2,34E-02	4,67E-03	4,97E-02	1,63E-01	5,76E-02	-3,82E+00
WDP <sup>2</sup>	m3	1,14E+00	1,30E-04	7,91E-03	1,43E-05	1,77E-05	2,59E-03	4,45E-02	-1,50E-02
Acronyms	<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								

<sup>2</sup> 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

## Resource use indicators

Results per declared unit: 1 kg									
Indicator	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
PERE	MJ	1,44E+01	2,74E-02	5,39E-03	2,97E-05	3,74E-03	1,69E-02	1,57E-02	-1,63E+00
PERM	MJ	1,40E+01	0,00E+00	-8,10E-01	0,00E+00	0,00E+00	0,00E+00	-1,32E+01	0,00E+00
PERT	MJ	2,84E+01	2,74E-02	-8,05E-01	2,97E-05	3,74E-03	1,69E-02	-1,32E+01	-1,63E+00
PENRE	MJ	3,95E+01	3,63E-01	2,34E-02	4,67E-03	4,97E-02	1,73E-01	6,42E+00	-3,82E+00
PENRM	MJ	8,60E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	-2,24E+00	-6,37E+00	0,00E+00
PENRT	MJ	4,81E+01	3,63E-01	2,34E-02	4,67E-03	4,97E-02	1,73E-01	5,74E-02	-3,82E+00
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	3,00E-02	1,35E-05	1,86E-04	3,33E-07	1,85E-06	6,48E-05	1,04E-03	-4,18E-03
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 mandatory and voluntary impact category indicators

Results per declared unit: 1 kg									
Indicator	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
GWP-GHG <sup>3</sup>	kg CO2 eq	3,17E+00	2,88E-02	1,80E-03	3,62E-04	3,94E-03	1,43E-02	4,73E-01	-1,87E-01
Acronyms	GWP-GHG = global warming potential - greenhouse gases								

## Waste indicators

Results per declared unit: 1 kg									
Indicator	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
HWD	kg	2,92E-02	1,46E-11	1,04E-11	4,18E-06	1,99E-12	7,85E-04	1,24E-09	-1,15E-08
NHWD	kg	6,68E-01	5,07E-05	0,00E+00	3,10E-05	6,94E-06	1,92E-02	8,89E-04	-6,23E-03
RWD	kg	2,10E-04	6,86E-07	1,01E-06	0,00E+00	9,38E-08	2,24E-06	3,29E-06	-4,19E-04
Acronyms	HW = Hazardous waste disposed; NHW = Non-hazardous waste disposed; RW = Radioactive waste disposed								

<sup>3</sup> This indicator accounts for all greenhouse gases except biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. As such, the indicator is identical to GWP-total except that the CF for biogenic CO2 is set to zero

### Output flow indicators

Results per declared unit: 1 kg									
Indicator	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
CRU	kg	0,00E+00							
MFR	kg	9,17E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	6,49E-02	0,00E+00	0,00E+00
MER	kg	0,00E+00							
EEE	MJ	0,00E+00	0,00E+00	9,65E-02	0,00E+00	0,00E+00	0,00E+00	1,02E+00	0,00E+00
EET	MJ	0,00E+00	0,00E+00	1,75E-01	0,00E+00	0,00E+00	0,00E+00	1,81E+00	0,00E+00
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 declared unit	Amount
Biogenic carbon content in product	kg C	3,09E-02
Biogenic carbon content in packaging	kg C	2,03E-02

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

## Additional Environmental Information

In addition to the most probable scenario, results from the corresponding 100% scenarios are added in this section.

### Mandatory impact category indicators according to EN 15804, EF 3.1

Results per declared unit: 1 kg														
Indicator	Unit	C1 100%	C2 100% RC	C2 100% INC	C2 100% LF	C3 100% RC	C3 100% INC	C3 100% LD	C4 100% RC	C4 100% INC	C4 100% LF	D 100% RC	D 100% INC	D 100% LF
GWP-total	kg CO2 eq	3,62E-04	1,30E-02	1,29E-02	1,31E-02	8,48E-02	6,41E-01	0,00E+00	0,00E+00	0,00E+00	1,23E+00	-1,78E-01	-8,74E-02	0,00E+00
GWP-fossil	kg CO2 eq	3,62E-04	1,28E-02	1,27E-02	1,29E-02	8,10E-02	6,41E-01	0,00E+00	0,00E+00	0,00E+00	6,47E-02	-1,76E-01	-9,09E-02	0,00E+00
GWP-biogenic	kg CO2 eq	4,02E-08	3,06E-05	3,03E-05	3,09E-05	3,61E-03	2,98E-05	0,00E+00	0,00E+00	0,00E+00	1,17E+00	5,05E-04	3,61E-03	0,00E+00
GWP-luluc	kg CO2 eq	3,71E-08	1,31E-04	1,30E-04	1,32E-04	1,52E-04	7,97E-06	0,00E+00	0,00E+00	0,00E+00	8,99E-05	-2,93E-03	-1,42E-04	0,00E+00
ODP	kg CFC-11 eq	5,38E-12	2,27E-15	2,10E-15	2,32E-15	9,54E-10	1,69E-11	0,00E+00	0,00E+00	0,00E+00	1,22E-11	-5,60E-13	-9,05E-13	0,00E+00
AP	mole H+ eq	3,24E-06	8,44E-05	8,34E-05	8,55E-05	3,64E-04	7,71E-05	0,00E+00	0,00E+00	0,00E+00	3,89E-04	-1,41E-04	-1,60E-04	0,00E+00
EP-freshwater	kg P eq	1,17E-08	3,43E-08	3,41E-08	3,45E-08	1,74E-05	4,25E-08	0,00E+00	0,00E+00	0,00E+00	5,82E-06	-1,61E-07	-5,93E-07	0,00E+00
EP-marine	kg N eq	1,51E-06	4,17E-05	4,14E-05	4,22E-05	1,47E-04	1,93E-05	0,00E+00	0,00E+00	0,00E+00	5,30E-04	-5,20E-05	-3,57E-05	0,00E+00
EP-terrestrial	mole N eq	1,65E-05	4,55E-04	4,52E-04	4,60E-04	1,27E-03	3,65E-04	0,00E+00	0,00E+00	0,00E+00	1,47E-03	-5,90E-04	-3,77E-04	0,00E+00
POCP	kg NMVOC eq	4,94E-06	8,02E-05	7,95E-05	8,13E-05	4,32E-04	5,83E-05	0,00E+00	0,00E+00	0,00E+00	8,94E-04	-1,33E-04	-1,04E-04	0,00E+00
ADP-minerals & metals <sup>4</sup>	kg Sb eq	1,29E-10	8,48E-10	8,40E-10	8,54E-10	3,24E-07	9,59E-10	0,00E+00	0,00E+00	0,00E+00	3,24E-09	-1,19E-08	-1,42E-07	0,00E+00
ADP-fossil <sup>2</sup>	MJ	4,67E-03	1,63E-01	1,62E-01	1,65E-01	1,11E+00	1,05E-01	0,00E+00	0,00E+00	0,00E+00	9,38E-01	-4,13E+00	-1,18E+00	0,00E+00
WDP <sup>2</sup>	m3	1,43E-05	5,99E-05	5,78E-05	6,08E-05	1,52E-02	6,00E-02	0,00E+00	0,00E+00	0,00E+00	7,52E-03	-1,27E-02	-1,43E-02	0,00E+00
Acronyms	<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													

<sup>4</sup> 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

## Resource use indicators

Results per declared unit: 1 kg														
Indicator	Unit	C1 100%	C2 100% RC	C2 100% INC	C2 100% LF	C3 100% RC	C3 100% INC	C3 100% LD	C4 100% RC	C4 100% INC	C4 100% LF	D 100% RC	D 100% INC	D 100% LF
PERE	MJ	2,97E-05	1,24E-02	1,22E-02	1,25E-02	6,64E-02	3,08E-02	0,00E+00	0,00E+00	0,00E+00	1,15E-01	-1,84E+00	-5,63E-01	0,00E+00
PERM	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	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PERT	MJ	2,97E-05	1,24E-02	1,22E-02	1,25E-02	6,64E-02	3,08E-02	0,00E+00	0,00E+00	0,00E+00	1,15E-01	-1,84E+00	-5,63E-01	0,00E+00
PENRE	MJ	4,67E-03	1,63E-01	1,62E-01	1,65E-01	1,11E+00	1,05E-01	0,00E+00	0,00E+00	0,00E+00	9,38E-01	-4,13E+00	-1,18E+00	0,00E+00
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	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PENRT	MJ	4,67E-03	1,63E-01	1,62E-01	1,65E-01	1,11E+00	1,05E-01	0,00E+00	0,00E+00	0,00E+00	9,38E-01	-4,13E+00	-1,18E+00	0,00E+00
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	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	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	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
FW	m3	3,33E-07	6,15E-06	6,03E-06	6,21E-06	3,58E-04	1,41E-03	0,00E+00	0,00E+00	0,00E+00	2,08E-04	-2,37E-03	-2,74E-03	0,00E+00
Acronyms	<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													

## Additional mandatory and voluntary impact category indicators

Results per declared unit: 1 kg														
Indicator	Unit	C1 100%	C2 100% RC	C2 100% INC	C2 100% LF	C3 100% RC	C3 100% INC	C3 100% LD	C4 100% RC	C4 100% INC	C4 100% LF	D 100% RC	D 100% INC	D 100% LF
GWP-GHG <sup>5</sup>	kg CO <sub>2</sub> eq	3,62E-04	1,29E-02	1,28E-02	1,30E-02	8,44E-02	6,41E-01	0,00E+00	0,00E+00	0,00E+00	1,13E+00	-1,82E-01	-9,15E-02	0,00E+00
Acronyms	GWP-GHG = global warming potential - greenhouse gases													

## Waste indicators

Results per declared unit: 1 kg														
Indicator	Unit	C1 100%	C2 100% RC	C2 100% INC	C2 100% LF	C3 100% RC	C3 100% INC	C3 100% LD	C4 100% RC	C4 100% INC	C4 100% LF	D 100% RC	D 100% INC	D 100% LF
HWD	kg	4,18E-06	6,73E-12	6,49E-12	6,82E-12	4,32E-03	1,31E-05	0,00E+00	0,00E+00	0,00E+00	9,38E-06	-2,80E-09	-3,10E-08	0,00E+00
NHWD	kg	3,10E-05	2,29E-05	2,26E-05	2,31E-05	9,60E-02	2,79E-03	0,00E+00	0,00E+00	0,00E+00	6,80E-01	-2,55E-03	-2,30E-02	0,00E+00
RWD	kg	0,00E+00	3,30E-07	3,06E-07	3,38E-07	2,24E-06	6,62E-06	0,00E+00	0,00E+00	0,00E+00	1,38E-05	-4,74E-04	-1,31E-04	0,00E+00
Acronyms	HW = Hazardous waste disposed; NHW = Non-hazardous waste disposed; RW = Radioactive waste disposed													

<sup>5</sup> This indicator accounts for all greenhouse gases except biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. As such, the indicator is identical to GWP-total except that the CF for biogenic CO<sub>2</sub> is set to zero

### Output flow indicators

Results per declared unit: 1 kg														
Indicator	Unit	C1 100%	C2 100% RC	C2 100% INC	C2 100% LF	C3 100% RC	C3 100% INC	C3 100% LD	C4 100% RC	C4 100% INC	C4 100% LF	D 100% RC	D 100% INC	D 100% LF
CRU	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	0,00E+00	0,00E+00	0,00E+00	0,00E+00
MFR	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,00E+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
MER	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	0,00E+00	0,00E+00	0,00E+00	0,00E+00
EEE	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,37E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
EET	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	2,44E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Acronyms	CRU = Components for reuse; MFR = Materials for recycling; MER = Materials for energy recovery; EEE = Exported electric energy; ETE = Exported thermal energy													

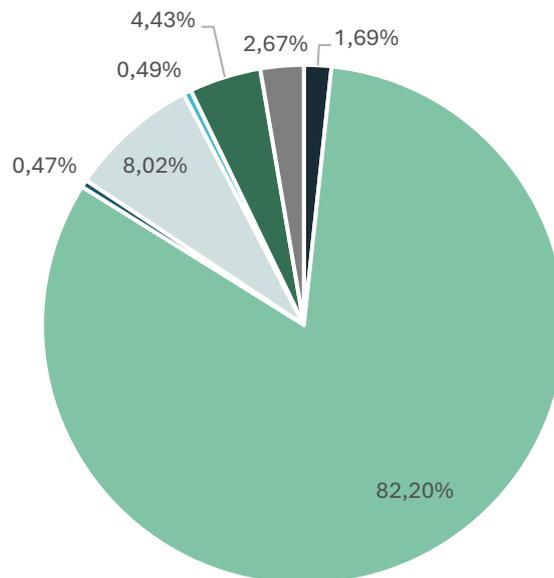
## Disclaimers

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
ILCD Type 3	Potential Human exposure efficiency relative to U235 (IRP)	1
	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>		Poland
<b>Electricity mix</b>		Biomass: 1,69% Hard coal: 82,20% Hydro: 0,47% Natural gas: 8,02% Nuclear: 0,49% Photovoltaic: 4,43% Wind: 2,67%
<b>Reference year</b>		2023
<b>Source</b>		Association of Issuing Bodies
<b>GWP excl. Biogenic</b>	kg CO <sub>2</sub> -eq. /kWh	0,071



■ Biomass
 ■ Hard coal
 ■ Hydro
 ■ Natural gas
 ■ Nuclear
 ■ Photovoltaic
 ■ Wind

## Abbreviations

Abbreviation	Definition
<b>General Abbreviations</b>	
EN	European Norm (Standard)
EF	Environmental Footprint
GPI	General Programme Instructions
ISO	International Organization for Standardization
CEN	European Committee for Standardization
CPC	Central product classification
SVHC	Substances of Very High Concern
ND	Not Declared
EU	Europe
SE	Sweden

## References

- Association of Issuing Bodies (2023) AIB. European Residual Mixes 2022. Version 1.0.  
<https://www.aib-net.org/facts/european-residual-mix/2022>  
(Retrieved 2026-01-05)
- Ecoinvent (2025) Ecoinvent dataset version 3.11 (2025)
- EN15804:2012+A2:AC/2021 Sustainability of construction works – Environmental product declaration – Core rules for the product category of constructions products
- EPD International (2024) General Programme Instructions of the International EPD® System, version 5.0
- ISO 14020:2022 International Standard ISO 14020 – Environmental statements and programmes for products – Principles and general requirements
- ISO 14025:2006 International Standard ISO 14025 – Environmental labels and declarations — Type III environmental declarations — Principles and procedures
- ISO 14040:2006 International Standard ISO 14040: Environmental Management – Life cycle assessment – Principles and framework. Second edition 2006-07-01.
- ISO 14044:2006 International Standard ISO 14044: Environmental Management – Life cycle assessment – Requirements and Guidelines
- PCR 2019:14 Construction products v 2.0.1
- SCB (2020) Treated waste by treatment category and waste category. Every second year 2010-2020.  
[https://www.statistikdatabasen.scb.se/pxweb/sv/ssd/START\\_MI\\_MI0305/MI0305T003/](https://www.statistikdatabasen.scb.se/pxweb/sv/ssd/START_MI_MI0305/MI0305T003/)
- Sphera (2025) Sphera (2025) LCA for Experts. MLC database CUP 2025.01.

## Version history

Original Version of the EPD, 2026-02-18

## Contact information

<p>EPD owner:</p>	 <p>Saint-Gobain Distribution Sweden          Email: <a href="mailto:beriar.marroof@saint-gobain.se">beriar.marroof@saint-gobain.se</a>          Telephone: +46 20 58 30 00          Address: Bryggerivägen 9, 168 67 Bromma, Sweden</p>
<p>LCA author:</p>	 <p>Fanni Végvári          Email: <a href="mailto:fanni.vegvari@carbonzero.se">fanni.vegvari@carbonzero.se</a>          Telephone: +46 73 854 90 52          Address: CarbonZero AB, Tåstrupsgatan 2, SE-262 32          Ängelholm, Sweden</p>
<p>Third party verifier:</p>	 <p>ViridisPride Ltd          Stephen Forson          Email: <a href="mailto:s.forson@viridispride.com">s.forson@viridispride.com</a></p>
<p>Program operator:</p>	 <p>INTERNATIONAL EPD SYSTEM          EPD International AB  <a href="mailto:info@environdec.com">info@environdec.com</a></p>

