Environmental Product Declaration

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

Alterna Capo shower enclosure

from

Saint-Gobain Building Distribution (SGDS)

Programme:	The International EPD® System, www.environdec.com
Programme operator:	EPD International AB
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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

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
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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. Version 1.2.5, date 2022-11-01.*
PCR review was conducted by: *The Technical Committee of the International EPD® System. Chair: Claudia A. Peña. Contact via info@environdec.com*
Life Cycle Assessment (LCA)
LCA accountability: *Stanislava Borisová, IVL Swedish Environmental Research Institute*
Third-party verification
Independent third-party verification of the declaration and data, according to ISO 14025:2006, via: ☒ EPD verification by individual verifier Third-party verifier: *Vladimír Kočí, Prague, Czech Republic, lcastudio.cz* Approved by: The International EPD® System
Procedure for follow-up of data during EPD validity involves third party verifier: ☐ Yes ☒ No

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

EPDs within the same product category but from different programmes may not be comparable. EPDs of construction products may not be comparable if they do not comply with EN 15804. For further information about comparability, see EN 15804 and ISO 14025.

Company information

Owner of the EPD:
Saint-Gobain Distribution Sweden (SGDS Gruppen AB)

Contact:
SGDS - Beriar Maroof (beriar.maroof@sgdsgruppen.se)

Description of the organisation:.
SGDS Gruppen AB is the mother company of some of Sweden's leading trading companies in distribution of building material within construction products, sheet metal, tiles and installation products for plumbing, heating and sanitary.
• Optimera - construction products
• Dahl - plumbing, heating, sanitary, civil engineering, industry, cooling and facility management
• Bevego - sheet metal, ventilation and technical insulation
• Kakelspecialisten and Konradssons Tiles - tiles, tiling and bathroom equipment
The company’s focus on sales and services to professional customers with direct contact to about 150 000 customers on a regular basis.

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

Product-related or management system-related certifications:
ISO 9001 and ISO 14001

Location of production site:
China

Product information

Product name:
Alterna Capo

Product identification:
Size 880x1950 mm.

Product description:
Alterna Shower enclosures and shower walls is a full range covering most of the installations on the market. Depending on range you can chose from wall profile, hinges or rail made in 6 mm hardened glass. Glass surface comes in clear, frosted, semi frosted or grey and with or without easy clean treatment.

UN CPC code:
3719

UNSPSC code:
30181507

Geographical scope:
The Nordic countries

LCA information

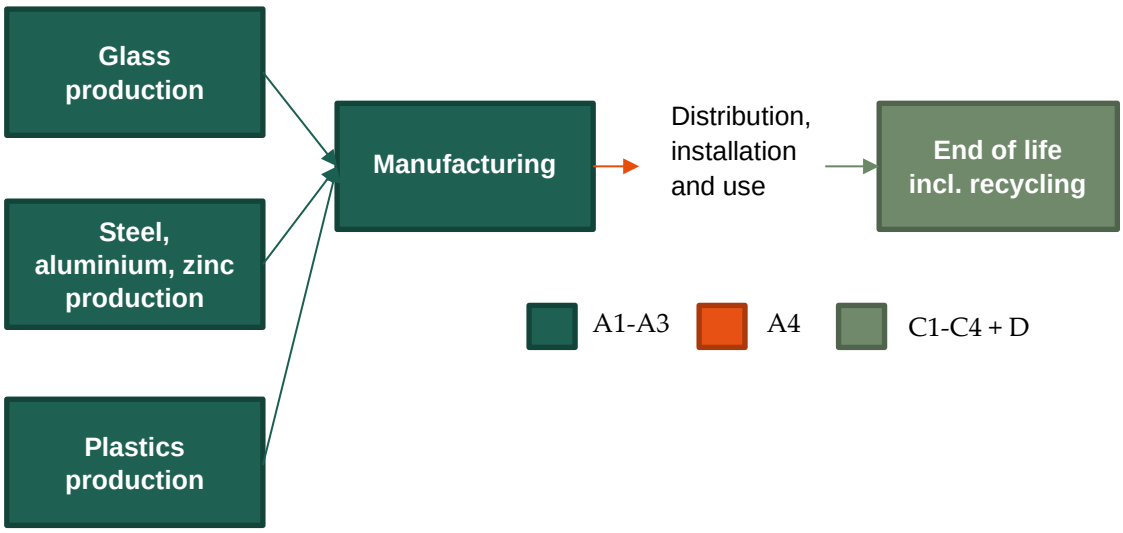
Declared unit:
1 item of Capo shower enclosure (24.977 kg)

Time representativeness:
The data used to model product manufacturing corresponds to year 2021. The data from generic databases are from 2015 - 2022. No data used is older than 10 years.

Database(s) and LCA software used:
Databases used are the Sphera's Managed LCA Content (version 2023.1). The LCA software used is LCA for Experts (version 10.7).

Description of system boundaries:
Cradle to gate with options, modules C1-C4, module D and with optional module A4.

System diagram:



Tempered glass, steel, aluminium, zinc and plastics (polyamide, polyvinylchloride, acrylonitrile butadiene styrene, polyoxymethylene and thermoplastic rubber), are transported to a manufacturing plant where shower enclosures are manufactured. The shower enclosures are transported to a central warehouse from where they are distributed to the final customers. After use the product is transported to waste processing, is manually disassembled and different materials are treated in their respective way.

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	X	ND	ND	ND	ND	ND	ND	ND	ND	X	X	X	X	X
Geography	CN	CN	CN	CN-NC	-	-	-	-	-	-	-	-	NC	NC	NC	NC	NC
Specific data used	45.5 %			-	-	-	-	-	-	-	-	-	-	-	-	-	-
Variation – products	0%			-	-	-	-	-	-	-	-	-	-	-	-	-	-
Variation – sites	0%			-	-	-	-	-	-	-	-	-	-	-	-	-	-

X: Module declared, ND: Module not declared, CN: China, NC: The Nordic countries

The results presented reflect the material composition of one specific variant given that the variation between the best and worst case was higher than 10%.

Allocation:
Weight allocation has been applied to allocate the manufacturing data, delivered for the complete plant, to 1 item of Capo shower enclosure.

Data quality:
Site-specific manufacturing data has been retrieved from the manufacturer. The upstream and downstream processes have been modelled based on generic data from databases. The collected data was reviewed according to EN 15804 and is deemed as of good quality.

Cut-off criteria:
The maximum cut-off criteria established by the PCR is 1% of all material and energy flows to a single unit process and 5% of total inflows (mass and energy) per module, e.g. per module A1-A3, A4, C1-C4 and module D. No cut-offs exceeding this limit have been made.

Content information

Product components	Weight, kg	Post-consumer material, weight-%	Renewable material, weight-%
Tempered glass	23.80	Unknown	0%
Aluminium	0.030	Unknown	0%
Stainless steel	0.243	Unknown	0%
Steel	0.012	Unknown	0%
Zinc alloy	0.740	Unknown	0%
Polyamide	0.008	Unknown	0%
Polyvinylchloride	0.133	Unknown	0%
Acrylonitrile butadiene styrene	0.0012	Unknown	0%
Polyoxymethylene	0.0055	Unknown	0%
Thermoplastic rubber	0.004	Unknown	0%
TOTAL	24.9767	Unknown	0%
Packaging materials	**Weight, kg**	**Weight-% (versus the product)**	
Corrugated paper	3.5000	14.0%	
Polystyrene foam	0.7660	3.1%	
Low density polyethylene	0.0370	0.1%	
Polypropylene	0.0830	0.3%	
TOTAL	4.3860	17.6%	

No substances that appear in the REACH candidate list of SVHC (Candidate List of Substances of Very High Concern) are present or used in the product.

Environmental Information

Potential environmental impact – mandatory indicators according to EN 15804

Results per functional or declared unit: 1 item of Capo								
Acronyms	**Unit**	**Total (A1-A3)**	**A4 Transport to warehouse**	**C1 Deconstruction**	**C2 Transport**	**C3 EoL**	**C4 Disposal**	**D Benefits**
GWP-GHG (1)	kg CO2 eq	**1.65E+01**	9.04E+00	0.00E+00	1.20E-01	4.34E-01	0.00E+00	-7.14E+00
GWP-total	kg CO2 eq	**1.76E+01**	9.18E+00	0.00E+00	1.25E-01	4.41E-01	0.00E+00	-7.30E+00
GWP-fossil	kg CO2 eq	**1.69E+01**	9.15E+00	0.00E+00	1.22E-01	4.40E-01	0.00E+00	-7.27E+00
GWP-biogenic	kg CO2 eq	**6.78E-01**	1.67E-02	0.00E+00	2.08E-03	2.75E-06	0.00E+00	-3.01E-02
GWP-luluc	kg CO2 eq	**1.01E-02**	4.85E-03	0.00E+00	1.40E-03	5.04E-04	0.00E+00	-6.05E-03
ODP	kg CFC-11 eq	**2.03E-07**	5.90E-13	0.00E+00	2.33E-17	1.26E-12	0.00E+00	-4.16E-08
AP	mole H+ eq	**8.96E-02**	3.03E-01	0.00E+00	2.14E-04	5.06E-04	0.00E+00	-4.81E-02
EP-freshwater	kg P eq	**7.61E-04**	5.44E-06	0.00E+00	1.10E-06	4.73E-07	0.00E+00	-2.83E-04
EP-marine	kg N eq	**1.66E-02**	7.14E-02	0.00E+00	7.48E-05	2.00E-04	0.00E+00	-8.33E-03
EP-terrestrial	mole N eq	**1.81E-01**	7.82E-01	0.00E+00	9.61E-04	2.28E-03	0.00E+00	-9.38E-02
POCP	kg NMVOC eq	**7.12E-02**	2.03E-01	0.00E+00	1.66E-04	5.43E-04	0.00E+00	-2.64E-02
ADP-minerals & metals	kg Sb eq	**9.83E-04**	1.22E-07	0.00E+00	1.29E-08	7.70E-08	0.00E+00	-9.20E-04
ADP-fossil	MJ	**2.49E+02**	1.11E+02	0.00E+00	1.58E+00	2.74E+00	0.00E+00	-8.61E+01
WDP	m3	**4.64E+00**	2.15E-02	0.00E+00	2.20E-03	5.31E-02	0.00E+00	-1.87E+00
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&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption							

(1) The GWP-GHG 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.

(2) Disclaimer: The results of this environmental impact indicator shall be used with care as the uncertainties of these results are high or as there is limited experience with the indicator.

Use of resources

Results per functional or declared unit: 1 item of Capo								
Acronyms	**Unit**	**Total (A1-A3)**	**A4 Transport to warehouse**	**C1 Deconstruction**	**C2 Transport**	**C3 EoL**	**C4 Disposal**	**D Benefits**
PERE	MJ	**2.50E+01**	1.09E+00	0.00E+00	1.96E-01	8.57E-01	0.00E+00	-1.55E+01
PERM	MJ	**0.00E+00**	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PERT	MJ	**2.50E+01**	1.09E+00	0.00E+00	1.96E-01	8.57E-01	0.00E+00	-1.55E+01
PENRE	MJ	**2.49E+02**	1.11E+02	0.00E+00	1.58E+00	2.74E+00	0.00E+00	-8.62E+01
PENRM	MJ	**0.00E+00**	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PENRT	MJ	**2.49E+02**	1.11E+02	0.00E+00	1.58E+00	2.74E+00	0.00E+00	-8.62E+01
SM	kg	**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	6.03E-27	0.00E+00	0.00E+00
NRSF	MJ	**0.00E+00**	0.00E+00	0.00E+00	0.00E+00	7.09E-26	0.00E+00	0.00E+00
FW	m3	**1.17E-01**	1.44E-03	0.00E+00	2.59E-04	1.61E-03	0.00E+00	-6.14E-02
Acronyms	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							

Waste production and output flows

Waste production

Results per functional or declared unit: 1 item of Capo								
Acronyms	**Unit**	**Total (A1-A3)**	**A4 Transport to warehouse**	**C1 Deconstruction**	**C2 Transport**	**C3 EoL**	**C4 Disposal**	**D Benefits**
HWD	kg	**1.23E-05**	6.82E-10	0.00E+00	1.03E-10	-9.02E-11	0.00E+00	-1.51E-04
NHWD	kg	**1.58E+00**	1.17E-02	0.00E+00	6.41E-04	1.21E-01	0.00E+00	-1.28E+00
RWD	kg	**3.46E-03**	1.38E-04	0.00E+00	4.29E-06	1.90E-04	0.00E+00	-2.03E-03

Output flows

Results per functional or declared unit: 1 item of Capo								
Acronyms	**Unit**	**Total (A1-A3)**	**A4 Transport to warehouse**	**C1 Deconstruction**	**C2 Transport**	**C3 EoL**	**C4 Disposal**	**D Benefits**
CRU	kg	**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	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
EEE	MJ	**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	0.00E+00	0.00E+00

Information on biogenic carbon content

Biogenic carbon content [(1)]	**Unit per DU**	**Amount**
Biogenic carbon content in product	kg C	0.00E+00
Biogenic carbon content in packaging	kg C	1.40E+00

(1) 1 kg biogenic carbon is equivalent to 44/12 kg CO2.

References

ISO (2000): ISO 14020:2000, Environmental labels and declarations – General principles

ISO (2006a): ISO 14025:2006, Environmental labels and declarations – Type III environmental declarations – Principles and procedures

ISO (2006c). ISO 14044: 2006, Environmental management – Life cycle assessment – Requirements and guidelines.

General Programme Instructions of the International EPD® System. Version 4.0.

PCR 2019:14 Construction products. Version 1.2.5

CEN (2019): EN 15804:2012+A2:2019, Sustainability of construction works – Environmental product declarations – Core rules for the product category of construction products.

Borisová, S. (2023) LCA methodology report for Aria, Capo and Lusso shower enclosures.

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