

Environmental Product Declaration



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

Prisma Button

from

PrismaTibro AB



Programme:	The International EPD System, www.environdec.com
Programme operator:	EPD International AB
Licensee:	-
Type of EPD:	EPD of multiple products from a company
EPD registration number:	EPD-IES-0023867
Version date:	2025-09-22
Validity date:	2030-09-22

An EPD may be updated or depublished if conditions change. To find the latest version of the EPD and to confirm its validity, see www.environdec.com

This EPD covers multiple products with the following 3 item:
Prisma 300, 800 & 1200. Based on worst-case of Prisma Button 1200.



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:	support@environdec.com

Product Category Rules (PCR)
CEN standard EN 15804 serves as the Core Product Category Rules (PCR)
Product Category Rules (PCR): <i>Construction products 2019:14, version 2.0.1, valid until 2030-04-07, UN CPC code: 4219</i>
PCR review was conducted by: <i>The Technical Committee of the International EPD® System.</i> <i>See www.environdec.com for a list of members.</i> <i>Chairs of the PCR Review: Rob Rouwette (chair), Claudia A. Peña (co-chair)</i>

Third-party Verification
Independent third-party verification of the declaration and data, according to ISO 14025:2006, via:
☐ Individual EPD verification without a pre-verified LCA/EPD tool Third-party verifier: <i>Camilla Landén, Hållbarhetsjouren AB</i> Approved by: International EPD System
*EPD process certification involves an accredited certification body certifying and periodically auditing the EPD process and conducting external and independent verification of EPDs that are regularly published. More information can be found in the General Programme Instructions on www.envrondec.com .
Procedure for follow-up of data during EPD validity involves third party verifier: ☐ Yes ☒ No
[Procedure for follow-up the validity of the EPD is at minimum required once a year with the aim of confirming whether the information in the EPD remains valid or if the EPD needs to be updated during its validity period. The follow-up can be organized entirely by the EPD owner or together with the original verifier via an agreement between the two parties. In both approaches, the EPD owner is responsible for the procedure being carried out. If a change that requires an update is identified, the EPD shall be re-verified by a verifier]

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

Owner of the EPD: Prisma Tibro AB

Address: Järnvägsgatan 19, SE-543 50 Tibro, Sweden

Contact: malin@prismatibro.se

Address and contact information of the LCA practitioner commissioned by the EPD owner, if applicable:

The Member Company AB

John Grönvallsplats 1, 541 36 Skövde

Joel Österberg (joel.osterberg@tmceurope.com)

Description of the organisation:

Prisma Tibro AB is a Swedish manufacturing company based in Tibro, specializing in innovative products within electronics and mechanics. Founded in 1987, the company emerged from the merger of Prisma Teknik AB and Prisma Light AB in 2019.

The company develops and produces five main product families:

Prisma Daps – Advanced pedestrian crossing signals designed with accessibility in mind, especially for visually impaired users. These are considered among the most advanced in the world.

Prisma Light – Outdoor LED lighting solutions for streets, parks, and public spaces, featuring smart control systems like DALI, Zhaga, and remote access.

Flexibump – A flexible speed bump made from specially developed rubber, designed to compress slightly for smoother traffic flow and increased safety.

Prisma DI – High-precision measuring instruments for large engines, including crankshaft deflection and ovality indicators.

Prisma Button – Intelligent push buttons and elbow switches used for doors, gates, and other control systems.

The company is known for its user-friendly yet technically advanced products and has a strong focus on traffic safety and accessibility. Since 2018, Prisma Tibro AB has been owned by Addtech, a Swedish technology trading group

Product-related or management system-related certifications: ISO 9001- and 14001:2015.

PRODUCT INFORMATION

Product name: Prisma Button

Product identification: Electronic push button units designed for activation of doors and gates,

Visual representation (e.g., an image) of the product



GTIN: 7340165640028

Product description:

Intelligent push buttons and elbow switches used for doors, gates, and other control systems.

Available in 3 different lengths: 300, 800 & 1200 (mm).

Name and location of production site(s): All products are produced at Prisma Tibro AB, Järnväggsgatan 19, SE-543 50 Tibro Sverige

Multiple products: All products included in this EPD are Prisma Buttons. The products have the exact same function and only differ in size by length and weight. All materials have the same geographical scope and production site. To cover the three different products the Prisma Button 1200 is chosen as the worst-case scenario product. The product is the largest and contains one extra Printed Circuit Board which gives it a environmental impact greater than 10%. Since the environmental impact is not linear due to the extra PCB the chosen declared unit is therefore set to 1,169m of the finished product: the size of the declared product. The variation of the products is shown in the table below:

Product name	Weight, kg	Length, m
Prisma Button 300	0,286	0,286
Prisma Button 800	1,249	0,799
Prisma Button 1200 (Declared Unit)	1,876	1,169

CONTENT DECLARATION

Product content	Mass, kg	Post-consumer recycled material, mass-% of product	Biogenic material, mass-% of product	Biogenic material, kg C/ declared unit
Aluminium	1,773	33,7%	0%	0%
Steel	0,014	0%	0%	0%
PCB	0,058	0%	0%	0%
Nylon	0,026	0%	0%	0%
Siliconseal	0,0056	0%	0%	0%
TOTAL	1,876	33,7%	0%	0%

Packaging materials	Mass, kg	Mass-% (versus the product)	Biogenic material, kg C/ declared unit
Cardboard	0,2	10,6%	0,095
TOTAL		10,6%	0,095

1 kg biogenic carbon in the packaging is equivalent to the uptake of 44/12 kg of CO₂.

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

LCA INFORMATION

Declared unit: 1,169m of Prisma Button 1200. Conversion factor to kg from meter is 1,605.

Reference service life: Estimated 15-25 years, used in LCA: 15 years.

Time representativeness: The collected data is representative of the year 2024.

Geographical scope: The supply of Raw materials A1 & Transport A2 has been modelled with suppliers from Europe and Asia. The manufacturing A3 is in Sweden. Transport to customer A4 is modelled with Sweden and Norway according to sales data. Module C and D scenarios are modelled for Sweden.

Database(s) and LCA software used: Ecoinvent 3.11 and Ecochain Mobius v.4.0

LCIA method: The LCIA method complies with EN 15804:2012+A2:2019/AC:2021, which adopts impact categories and characterization factors from Environmental Footprint 3.1 (EF 3.1). The only deviation is in biogenic CO₂ accounting: EN 15804 treats uptake as -1 and emissions as +1, while EF 3.1 assigns both a value of 0.

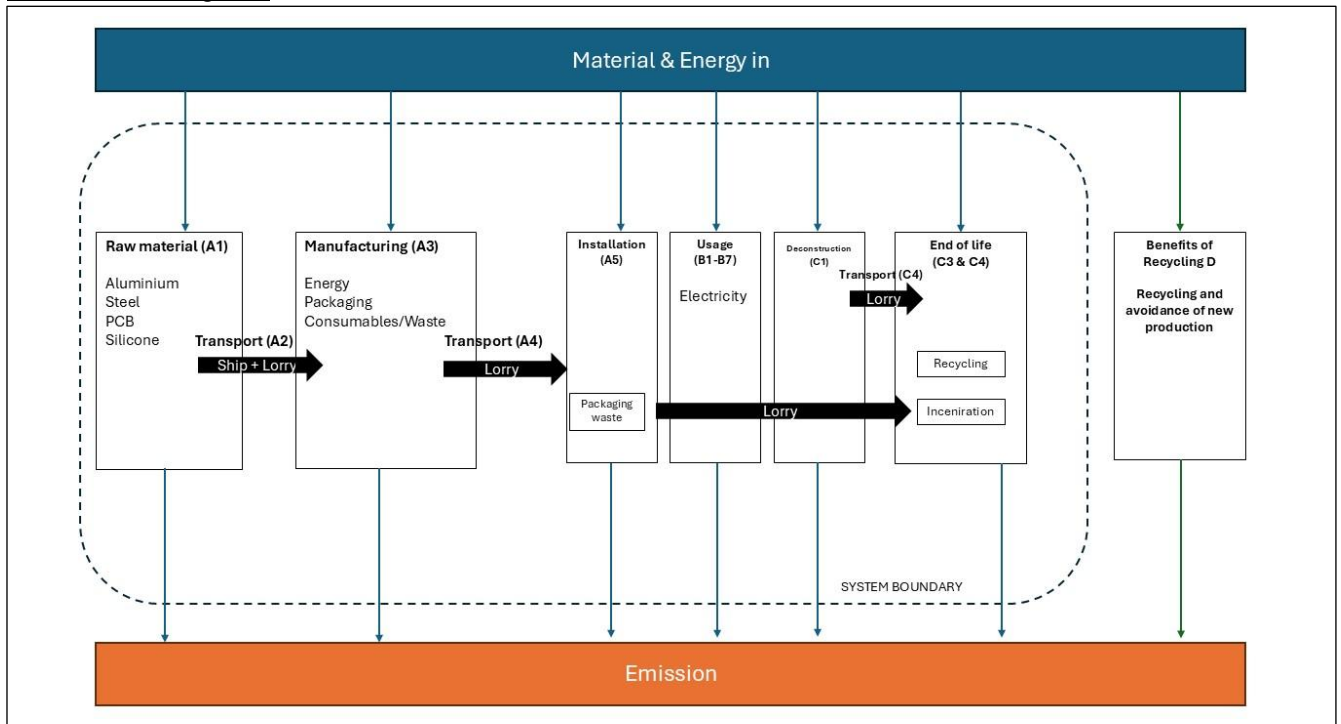
Cut-off criteria: The PCR sets cut-off limits at 1% for individual flows and 5% for total inflows per module. These thresholds have not been exceeded.

In accordance SS-EN 15804:2012+A2:2019/AC:2021, infrastructure and capital goods are outside the system boundaries. However, background datasets used in this study (ecoinvent v3.11) inherently include minor contributions from infrastructure and capital goods. These contributions have not been subtracted, since this cannot be done within reasonable effort and their influence on the results is negligible.

Description of system boundaries:

The system boundaries for this LCA are defined in accordance with PCR 2019:14, aligned with SS-EN 15804:2012+A2:2019/AC:2021 and ISO 14040/14044 standards. The assessment follows a cradle-to-grave approach with options, modules C1–C4, module D and with optional modules (A1–A3 + C + D and A4-A5 and B1-B7). For module B, only B6 is relevant due to the usage of electricity.

Process flow diagram:



More information:

Module A1-A2

The raw material in Prisma Button 1200 is aluminium, steel, PCB and silicon sealant. The aluminium profiles are sourced from Swedish suppliers who do the processing of the profiles. The two suppliers of the aluminium profiles to Prisma Button source their raw material from a Swedish supplier, but with no exact declaration of incoming aluminium available a European market dataset for aluminium production is used. The steel is in terms of the screws in the product and is sourced from a Swedish supplier. The PCB is sourced from a Swedish supplier which in turn sources all material from China. The components of the PCB have been accounted for by calculating the impact of each used component on the PCB. To handle waste in production of the PCB, no specific data is available, an assumption of 5% scrap rate is made (LCA report Prisma Button, 2024).

PCB components are shipped from China by sea and then transport by road to Swedish supplier and then to Prisma Tibro. Rest of products are transported by road from the Swedish suppliers.

Recycled content assumptions

The recycled content of metals used in this product has been modelled based on industry averages, as no supplier-specific data was available.

- For aluminium, a recycled content of ~35 % has been applied, representing the European market average.
- For copper, a recycled content of ~35 % has been applied, based on global and European data from the International Copper Association (ICA) and European Copper Institute (ECI).

These values are considered conservative and representative for the Swedish and European context, where production relies on both primary and secondary material streams.

The detailed justification, including data sources (IAI, ICA, ECI, JRC, DERA, Boliden case studies), is provided in Annex A in the accompanying LCA report for Prisma Button,

Module A3

The production processes are modelled using specific values from primary data collection at the production site in Tibro, Sweden. All relevant production processes, including packaging, have been included in this assessment.

The production of Prisma Button only contains two main steps: manual mounting and hardening. The hardening process consumes 0,0076kwh per Prisma Button. The electricity mix for Prisma's manufacturing has been modelled using the residual electricity mix for Sweden. This is represented using the ecoinvent dataset "Electricity, medium voltage SE | electricity, medium voltage, residual mix | Cut-off, U". The climate footprint of the electricity mix is 0,0142 kg CO₂-eq per kWh.

In terms of general heating of the building it has been modelled from specific data from Prisma. 99,3% is from renewable resources and 0,7% from fossil fuel. Ecoinvent datasets used for modeling this are: "heat and power co-generation, wood chips, 6667 kW, state-of-the-art 2014 | heat, district or industrial, other than natural gas | Cutoff, U" and "market for heat, central or small-scale, natural gas | heat, central or small-scale, natural gas | Cutoff, U"

To allocate the general electricity and heating an economic allocation based on the total sales volume of Prisma Tibro 2024 has been used. See Annex B in LCA report for details.

Since the production of Prisma Button is solely a mounting of complete units there is minimal waste connected to the product. To make the product carry some of the general waste from the production at the site, the previous economic allocation is used, 5,8%, see Annex B for details. The total cardboard and general combustion waste generated from Prisma during 2024 is added.

Module A4

The finished product is shipped by road, diesel truck, at 220km. Used dataset: "Transport, freight, lorry 16-32 metric ton, EURO5 | transport, freight, lorry 16-32 metric ton, EURO5 | Cutoff, U"

Module A5

The Prisma Button is mounted by hand and secured with 4 screws. Packaging material that comes with the product is considered as waste from installation and declared in End Of Life Module C.

Module B1-B7

B1-B5 + B7

These modules are not relevant for the declared product.

B6

The energy consumption, in terms of electricity kWh, during the use phase is assumed by an estimated use in a public building of 100 active mode à 5s per day. When the Prisma Button is in standby it consumes a lower amount electricity. The energy consumption is calculated for the lifetime of the product 15 years in a Swedish market.

$$\begin{aligned} \text{Average used power per day: } & 23,219\text{Wh} \\ \text{Total used power: } & 23,219\text{Wh} \times 365 \times 15 \approx 1266\text{Wh} = \mathbf{126,6kWh} \end{aligned}$$

This ecoinvent dataset used is: “market for electricity, low voltage SE | electricity, low voltage | Cutoff, U”. The climate footprint of the electricity mix is 0,044 kg CO₂-eq per kWh

Module C1-C4

After use, the product is transported for waste processing. Module C1 is considered negligible since deconstruction is made manually. Transport distances C3 were set at 100 km, modeled using the ecoinvent 3.11 dataset for EURO5 lorries. As most customers are in Sweden, a Swedish end-of-life scenario—combining recycling and incineration—was used in C3. Per PCR rules, 100% recycling and 100% incineration scenarios are also reported in “Additional LCA results.” For waste treatment (C3) recycling rates (R2) are gathered from PEF Circular Footprint Formula (Annex C5). Aluminum is recycled at an 85%, with remaining waste assumed to be landfilled. The nylon parts are 100% incinerated since recycling of this product is very complex and very unusual.

For the printed circuit boards (PCBs) are assumed to be recycled through the Boliden process at the Rönnskär smelter in Sweden, using the ecoinvent dataset “*treatment of electronics scrap, metals recovery in copper smelter*”(v3.10, cut-off). This process includes pre-treatment, pyrometallurgical smelting, recovery of copper and other metals, and thermal treatment of organic fractions.

In line with EN 15804 +A2, the environmental burdens of this process are reported in Module C3, while the benefits of secondary metal production are included in Module D.

Further methodological details, assumptions, and references are provided in the accompanying LCA report (Annex A).

Module D accounts for net recycling flows, including associated loads and benefits. Recovery rates are based on conservative European data for electronics, with minimal impact on overall results.

Data Quality

The EPD is based on primary data collected at Prisma Tibro AB during 2024. It represents the production of Prisma Button 1200. Data was sourced directly from suppliers and the production site. For the upstream suppliers secondary databased sourced has been used due to lack of data from supplier. The end-of-life scenario reflects Swedish conditions. Background data is drawn from the Ecoinvent v3.11 database and EPDs for steel inputs. According to EN 15804:2012+A2:2019, Annex E.1, the majority of data used is rated as Good to Very Good in terms of technological, geographical, and temporal representativeness. There are two post assessed as fair in terms of the geographical aspect: *market for printed wiring board, surface mounted, unspecified, Pb free* and *market for nylon 6-6* since.

Allocation

The allocation method applied in this study is the cut-off approach, which assigns environmental burdens exclusively to the product system that generates them. Under this method, impacts associated with co-products or recovered materials are not allocated to the original product system but to the subsequent life cycle where they are utilized.

Allocation for the heat and waste data in Module A3 is based on yearly sales of Prisma Button family divided by total yearly sales volumes at Prisma Tibro AB. Economical allocation due to:

- Accounts for only 5,8% of annual sales, making the financial impact a fair basis for allocation.
- Has a dedicated process flow, avoiding shared production steps.
- Requires manual mounting only and minimal production space, limiting shared resource use.

More information

For more information about the LCA, the LCA practitioner can be contacted via info.sweden@tmceurope.com

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

	Product stage			Distribution/ installation stage		Use stage							End-of-life stage				Beyond product life cycle
	Raw material supply	Transport	Manufacturing	Transport	Construction installation	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction demolition	Transport	Waste processing	Disposal	Reuse-Recovery-Recycling- potential
Module	A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Modules declared	X	X	X	X	X	-	-	-	-	-	X	ND	X	X	X	X	X
Geography	GLO	GLO	SE	SE	SE	-	-	-	-	-	SE	-	SE	SE	SE	SE	SE
Share of primary data	1,95%					-	-	-	-	-	-	-	-	-	-	-	-
Variation – products	>10%					-	-	-	-	-	-	-	-	-	-	-	-
Variation – sites	0%					-	-	-	-	-	-	-	-	-	-	-	-

Process	Source type	Source	Reference year	Data category	Share of primary data, of GWP-GHG results for A1-A3
A1 Raw Material Aluminium	Collected data	EPD owner	2024	Primary data + Secondary data	0%
A1 Raw material PCB	Collected Data/Database	EPD owner	2024	Primary data, Secondary data	0%
A2 Transport of raw material	Collected data/Database	EPD owner/Ecoinvent v3.10	2024	Primary data, Secondary data	0,2%
A3 Waste Treatment	Collected data	EPD owner	2021	Primary data, secondary data	0,02%
A3 Manufacturing	Collected data	Ecoinvent v3.10	2024	Primary data	0,5%
Other Processes (A1-A3)		Ecoinvent v3.10,		Primary data, secondary data	1,2%
Total share of primary data, of GWP-GHG results for A1-A3					1,95%

Note: For the upstream supply chain of raw material primary data from the nearest supplier in the supply chain has been used, but for the next step specific data has been missing e.g. Primary data is set to 0%. No proxy data is used.

ENVIRONMENTAL PERFORMANCE

LCA results of the product(s) - main environmental performance results

Mandatory impact category indicators according to EN 15804

Results per functional or declared unit																
Indicator	Unit	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
GWP-total	kg CO ₂ eq.	2,96 E+01	4,92 E-02	2,79 E-01	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	5,49 E+00	0,00 E+00	0,00 E+00	3,96 E-02	1,38 E+00	6,84 E-02	- 9,11 E+00
GWP-fossil	kg CO ₂ eq.	2,96 E+01	4,91 E-02	1,01 E-01	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	4,86 E+00	0,00 E+00	0,00 E+00	3,95 E-02	1,36 E+00	6,84 E-02	- 8,94 E+00
GWP-biogenic	kg CO ₂ eq.	- 3,48 E-01	0,00 E+00	3,48 E-01	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00
GWP-luluc	kg CO ₂ eq.	2,39 E-01	1,53 E-05	9,53 E-04	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	4,73 E-01	0,00 E+00	0,00 E+00	1,92 E-05	1,80 E-03	3,65 E-06	- 1,83 E-01
ODP	kg CFC 11 eq.	1,06 E-06	1,08 E-09	2,88 E-09	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	1,73 E-07	0,00 E+00	0,00 E+00	8,60 E-10	2,21 E-08	1,92 E-10	- 7,61 E-08
AP	mol H ⁺ eq.	2,75 E-01	1,51 E-04	4,07 E-04	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	5,68 E-02	0,00 E+00	0,00 E+00	1,29 E-04	6,64 E-03	6,81 E-05	- 7,32 E-02
EP-freshwater	kg P eq.	4,11 E-03	3,54 E-07	9,22 E-06	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	2,99 E-04	0,00 E+00	0,00 E+00	3,16 E-07	4,63 E-05	1,04 E-07	- 2,81 E-04
EP-marine	kg N eq.	3,57 E-02	4,99 E-05	2,08 E-04	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	7,22 E-03	0,00 E+00	0,00 E+00	4,38 E-05	1,23 E-03	2,93 E-05	- 8,74 E-03
EP-terrestrial	mol N eq.	4,12 E-01	5,49 E-04	1,44 E-03	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	9,47 E-02	0,00 E+00	0,00 E+00	4,68 E-04	1,43 E-02	3,18 E-04	- 9,75 E-02
POCP	kg NMVOC eq.	1,30 E-01	2,30 E-04	3,50 E-04	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	2,41 E-02	0,00 E+00	0,00 E+00	1,93 E-04	4,36 E-03	9,29 E-05	- 3,52 E-02
ADP-minerals&metals*	kg Sb eq.	6,80 E-03	1,67 E-07	3,76 E-07	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	5,11 E-04	0,00 E+00	0,00 E+00	1,27 E-07	1,66 E-04	2,22 E-08	- 5,38 E-05
ADP-fossil*	MJ	4,01 E+02	6,86 E-01	1,35 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	5,98 E+02	0,00 E+00	0,00 E+00	5,61 E-01	1,46 E+01	1,31 E-01	- 8,91 E+01
WDP*	m ³	1,16 E+01	2,95 E-03	6,65 E-02	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	8,91 E+00	0,00 E+00	0,00 E+00	2,29 E-03	1,55 E+00	7,03 E-03	- 4,34 E+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															

Disclaimer: 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. The results of the end-of-life stage (modules C1-C4) should be considered when using the results of the product stage (modules A1-A3). Note: Biogenic carbon in packaging is balanced in A1-A3.

** 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 experience with the indicator*

Additional mandatory and voluntary impact category indicators

Results per 1,169m Prisma Button																
Indicator	Unit	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
GWP-GHG ¹	kg CO ₂ eq.	2,96 E+01	4,92 E-02	1,05 E-01	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	5,41 E+00	0,00 E+00	0,00 E+00	3,96 E-02	1,37 E+00	6,84 E-02	- 9,16 E+00
PM	disease inc.	1,97 E-06	3,35 E-09	3,29 E-09	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	3,48 E-07	0,00 E+00	0,00 E+00	3,13 E-09	6,35 E-08	1,13 E-09	- 1,00 E-06
IR ²	kBq U235 eq	1,85 E+00	3,54 E-04	2,83 E-03	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	2,07 E+01	0,00 E+00	0,00 E+00	2,81 E-04	4,13 E-02	5,63 E-05	- 3,67 E-01
ETP – FW*	CTUe	5,24 E+02	1,00 E-01	1,27 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	5,77 E+01	0,00 E+00	0,00 E+00	2,77 E-01	4,47 E+01	4,83 E-01	- 2,49 E+01
HTP – C*	CTUh	2,87 E-08	7,78 E-12	3,30 E-11	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	7,39 E-09	0,00 E+00	0,00 E+00	1,80 E-11	1,65 E-09	8,39 E-12	- 1,31 E-08
HTP – NC*	CTUh	7,87 E-07	4,04 E-10	1,95 E-09	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	4,42 E-07	0,00 E+00	0,00 E+00	3,95 E-10	4,71 E-08	2,33 E-10	- 1,12 E-07
Land use, SQP*	Pt	1,38 E+02	3,52 E-01	1,02 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	1,57 E+02	0,00 E+00	0,00 E+00	3,34 E-01	9,11 E+00	1,30 E-01	- 1,98 E+01
Acronyms	GWP-GHG: Global Warming Potential, Greenhouse Gases, PM: Particulate Matter, IRP: Ionizing Radiation - Human Health, ETPFW: Ecotoxicity Potential – Freshwater, HTP-C: Human Toxicity Potential – Cancer, HTP-NC: Human Toxicity Potential – NonCancer, SQP: Soil Quality Potential Index															

Disclaimer: The results of the impact categories land use, human toxicity (cancer), human toxicity, non-cancer and ecotoxicity (freshwater) may be highly uncertain in LCAs that include capital goods/infrastructure in generic datasets, in case infrastructure/capital goods contribute greatly to the total results. This is because the LCI data of infrastructure/capital goods used to quantify these indicators in currently available generic datasets sometimes lack temporal, technological and geographical representativeness. Caution should be exercised when using the results of these indicators for decision-making purposes.

** 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.*

¹ 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.

² 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.

Resource use indicators

Results per declared unit																
Indicator	Unit	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
PERE	MJ	9,22 E+01	1,26 E-02	2,73 E-01	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	3,79 E+02	0,00 E+00	0,00 E+00	8,70 E-03	1,83 E+00	2,63 E-03	- 6,56 E+01
PERM	MJ	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00
PERT	MJ	9,22 E+01	1,26 E-02	2,73 E-01	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	3,79 E+02	0,00 E+00	0,00 E+00	8,70 E-03	1,83 E+00	2,63 E-03	- 6,56 E+01
PENRE	MJ	4,27 E+02	7,29 E-01	1,47 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	6,01 E+02	0,00 E+00	0,00 E+00	5,96 E-01	1,57 E+01	1,40 E-01	- 9,41 E+01
PENRM	MJ	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00
PENRT	MJ	4,27 E+02	7,29 E-01	1,47 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	6,01 E+02	0,00 E+00	0,00 E+00	5,96 E-01	1,57 E+01	1,40 E-01	- 9,41 E+01
SM	kg	7,21 E+02	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00
RSF	MJ	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00
NRSF	MJ	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00
FW	m ³	5,71 E-01	9,55 E-05	2,10 E-03	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	6,57 E-01	0,00 E+00	0,00 E+00	7,45 E-05	4,00 E-02	1,92 E-04	- 1,96 E-01
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 indicators

Results per declared unit																
Indicator	Unit	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Hazardous waste disposed	kg	8,37 E-03	4,68 E-06	6,73 E-06	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	5,65 E-04	0,00 E+00	0,00 E+00	3,57 E-06	1,15 E-02	9,98 E-07	- 3,88 E-04
Non-hazardous waste disposed	kg	1,46 E+00	2,80 E-02	1,07 E-02	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	3,25 E+00	0,00 E+00	0,00 E+00	2,74 E-02	1,53 E-01	5,91 E-03	- 5,19 E-01
Radioactive waste disposed	kg	1,17 E-03	2,49 E-07	2,21 E-06	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	9,08 E-03	0,00 E+00	0,00 E+00	1,82 E-07	2,73 E-05	3,77 E-08	- 1,96 E-04

Output flow indicators

Results per functional or declared unit																
Indicator	Unit	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Components for re-use	kg	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Material for recycling	kg	0,00	0,00	0,15	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	1,56	0,00	0,00
Materials for energy recovery	kg	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,03	0,00	0,00
Exported energy, electricity	MJ	0,00	0,00	0,29	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,57	0,00	0,00
Exported energy, thermal	MJ	0,00	0,00	0,68	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	1,34	0,00	0,00

Additional LCA results (other environmental performance results) of the product(s)

100% Recycling Scenario for modules A5, C1-C4 & D

Mandatory impact category indicators according to EN 15804, per 1,169m Prisma Button

Mandatory impact category indicators according to EN 15804

Results per functional or declared unit																
Indicator	Unit	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
GWP-total	kg CO ₂ eq.	2,25 E+01	4,87 E-02	1,92 E-01	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	5,49 E+00	0,00 E+00	0,00 E+00	3,96 E-02	1,42 E+00	4,44 E-03	- 3,62 E+00
GWP-fossil	kg CO ₂ eq.	2,23 E+01	4,87 E-02	1,01 E-01	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	4,86 E+00	0,00 E+00	0,00 E+00	3,95 E-02	1,39 E+00	4,24 E-03	- 3,58 E+00
GWP-biogenic	kg CO ₂ eq.	- 3,48 E-01	0,00 E+00	3,48 E-01	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00
GWP-luluc	kg CO ₂ eq.	1,14 E-01	2,23 E-05	9,53 E-04	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	4,73 E-01	0,00 E+00	0,00 E+00	1,92 E-05	1,66 E-03	2,67 E-06	- 7,24 E-02
ODP	kg CFC 11 eq.	1,01 E-06	1,06 E-09	2,88 E-09	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	1,73 E-07	0,00 E+00	0,00 E+00	8,60 E-10	2,67 E-08	9,16 E-11	- 6,77 E-08
AP	mol H ⁺ eq.	1,82 E-01	1,52 E-04	4,07 E-04	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	5,68 E-02	0,00 E+00	0,00 E+00	1,29 E-04	6,40 E-03	2,29 E-05	- 3,05 E-02

EP-freshwater	kg P eq.	3,66 E-03	3,83 E-07	9,22 E-06	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	2,99 E-04	0,00 E+00	0,00 E+00	3,16 E-07	4,39 E-05	6,79 E-08	- 1,28 E-04
EP-marine	kg N eq.	2,84 E-02	5,13 E-05	2,08 E-04	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	7,22 E-03	0,00 E+00	0,00 E+00	4,38 E-05	1,17 E-03	8,07 E-06	- 3,82 E-03
EP-terrestrial	mol N eq.	3,24 E-01	5,48 E-04	1,44 E-03	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	9,47 E-02	0,00 E+00	0,00 E+00	4,68 E-04	1,36 E-02	8,75 E-05	- 4,05 E-02
POCP	kg NMVOC eq.	9,71 E-02	2,27 E-04	3,50 E-04	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	2,41 E-02	0,00 E+00	0,00 E+00	1,93 E-04	4,34 E-03	3,23 E-05	- 1,44 E-02
ADP-minerals&metals*	kg Sb eq.	6,53 E-03	1,55 E-07	3,76 E-07	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	5,11 E-04	0,00 E+00	0,00 E+00	1,27 E-07	1,36 E-04	1,09 E-08	- 4,27 E-05
ADP-fossil*	MJ	3,20 E+02	6,85 E-01	1,35 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	5,98 E+02	0,00 E+00	0,00 E+00	5,61 E-01	1,40 E+01	7,46 E-02	- 3,58 E+01
WDP*	m ³	7,16 E+00	2,61 E-03	6,65 E-02	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	8,91 E+00	0,00 E+00	0,00 E+00	2,29 E-03	1,46 E+00	- 2,72 E-03	- 9,80 E-01
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															

100% Incineration Scenario for modules A5, C1-C4 & D

Mandatory impact category indicators according to EN 15804, per 1,2m Prisma Button

Mandatory impact category indicators according to EN 15804

Results per functional or declared unit																
Indicator	Unit	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
GWP-total	kg CO ₂ eq.	2,92 E+01	4,87 E-02	1,92 E-01	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	5,49 E+00	0,00 E+00	0,00 E+00	3,96 E-02	1,42 E+00	4,44 E-03	0,00 E+00
GWP-fossil	kg CO ₂ eq.	2,88 E+01	4,87 E-02	1,01 E-01	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	4,86 E+00	0,00 E+00	0,00 E+00	3,95 E-02	1,39 E+00	4,24 E-03	0,00 E+00
GWP-biogenic	kg CO ₂ eq.	- 3,48 E-01	0,00 E+00	3,48 E-01	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00
GWP-luluc	kg CO ₂ eq.	2,37 E-01	2,23 E-05	9,53 E-04	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	4,73 E-01	0,00 E+00	0,00 E+00	1,92 E-05	1,66 E-03	2,67 E-06	0,00 E+00
ODP	kg CFC 11 eq.	1,16 E-06	1,06 E-09	2,88 E-09	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	1,73 E-07	0,00 E+00	0,00 E+00	8,60 E-10	2,67 E-08	9,16 E-11	0,00 E+00
AP	mol H ⁺ eq.	2,25 E-01	1,52 E-04	4,07 E-04	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	5,68 E-02	0,00 E+00	0,00 E+00	1,29 E-04	6,40 E-03	2,29 E-05	0,00 E+00
EP-freshwater	kg P eq.	3,92 E-03	3,83 E-07	9,22 E-06	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	2,99 E-04	0,00 E+00	0,00 E+00	3,16 E-07	4,39 E-05	6,79 E-08	0,00 E+00
EP-marine	kg N eq.	3,41 E-02	5,13 E-05	2,08 E-04	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	7,22 E-03	0,00 E+00	0,00 E+00	4,38 E-05	1,17 E-03	8,07 E-06	0,00 E+00
EP-terrestrial	mol N eq.	3,87 E-01	5,48 E-04	1,44 E-03	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	9,47 E-02	0,00 E+00	0,00 E+00	4,68 E-04	1,36 E-02	8,75 E-05	0,00 E+00

POCP	kg NMVOC eq.	1,21 E-01	2,27 E-04	3,50 E-04	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	2,41 E-02	0,00 E+00	0,00 E+00	1,93 E-04	4,34 E-03	3,23 E-05	0,00 E+00
ADP- minerals& metals*	kg Sb eq.	6,47 E-03	1,55 E-07	3,76 E-07	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	5,11 E-04	0,00 E+00	0,00 E+00	1,27 E-07	1,36 E-04	1,09 E-08	0,00 E+00
ADP- fossil*	MJ	4,02 E+02	6,85 E-01	1,35 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	5,98 E+02	0,00 E+00	0,00 E+00	5,61 E-01	1,40 E+01	7,46 E-02	0,00 E+00
WDP*	m ³	8,49 E+00	2,61 E-03	6,65 E-02	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	8,91 E+00	0,00 E+00	0,00 E+00	2,29 E-03	1,46 E+00	- 2,72 E-03	0,00 E+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															

ABBREVIATIONS

Abbreviation Definition

General Abbreviations

EN	European Norm (Standard)
EPD	Environmental Product Declaration
EF	Environmental Footprint
GPI	General Programme Instructions
ISO	International Organization for Standardization
LCA	Life Cycle Assessment
PCR	Product Category Rules
c-PCR	Complementary Product Category Rules
CEN	European Committee for Standardization
CPC	Central product classification
GHG	Greenhouse Gas
PEF	Product Environmental Footprint
GTIN	Global Trade Item Number

Environmental Impact Indicators (EN 15804)

GHG	Greenhouse Gas
GWP	Global Warming Potential (kg CO ₂ eq.)
GWP-fossil	Global Warming Potential from fossil sources (kg CO ₂ eq.)
GWP-biogenic	Global Warming Potential from biogenic sources (kg CO ₂ eq.)
GWP-luluc	Global Warming Potential from land use and land use change(kgCO ₂ eq.)
GWP-total	Total Global Warming Potential (kg CO ₂ eq.)
GWP-GHG	Global Warming Potential for greenhouse gases (kg CO ₂ eq.)
ODP	Ozone Depletion Potential (kg CFC-11 eq.)
AP	Acidification Potential (mol H ⁺ eq.)
EP	Eutrophication Potential
EP-freshwater	Freshwater eutrophication potential (kg P eq.)
EP-marine	Marine eutrophication potential (kg N eq.)
EP-terrestrial	Terrestrial eutrophication potential (mol N eq.)
POCP	Photochemical Ozone Creation Potential (kg NMVOC eq.)
ADP	Abiotic Depletion Potential
ADP-minerals&metals	Abiotic depletion potential for non-fossil resources (kg Sb eq.)
ADP-fossil	Abiotic depletion potential for fossil resources (MJ)
WDP	Water Deprivation Potential (m ³)

Resource Use Indicators

PERE	Renewable primary energy (excluding as raw materials) (MJ)
PERM	Renewable primary energy used as raw materials (MJ)
PERT	Total renewable primary energy (MJ)
PENRE	Non-renewable primary energy (excluding as raw materials) (MJ)
PENRM	Non-renewable primary energy used as raw materials (MJ)
PENRT	Total non-renewable primary energy (MJ)
SM	Use of secondary material (kg)
RSF	Use of renewable secondary fuels (MJ)
NRSF	Use of non-renewable secondary fuels (MJ)
FW	Use of net fresh water (m ³)
HW	Hazardous Waste (disposed) (kg)
NHW	Non-Hazardous Waste (disposed) (kg)
RW	Radioactive Waste (disposed) (kg)

Output Flow Indicators

CFR	Components for Reuse (kg)
MR	Material for Recycling (kg)
MER	Materials for Energy Recovery (kg)
EEE	Exported Energy, Electricity (MJ)
EET	Exported Energy, Thermal (MJ)

Lifecycle Stages / Modules

A1	Raw material supply
A2	Transport
A3	Manufacturing
A4	Transport to site
A5	Construction/Installation
B1	Use
B2	Maintenance
B3	Repair
B4	Replacement
B5	Refurbishment
B6	Operational energy use
B7	Operational water use
C1	Deconstruction/Demolition
C2	Transport to waste processing
C3	Waste processing
C4	Disposal
D	Reuse-Recovery-Recycling potential

Other Relevant Terms

SVHC	Substances of Very High Concern
EC No.	European Community Number
CAS No.	Chemical Abstracts Service Number
MJ	Megajoule
kg	Kilogram
m ³	Cubic Meter
NM VOC	Non-Methane Volatile Organic Compounds
Sb eq.	Antimony Equivalents
P eq.	Phosphorus Equivalents
N eq.	Nitrogen Equivalents
CFC-11 eq.	Chlorofluorocarbon-11 Equivalents
CO ₂ eq.	Carbon Dioxide Equivalents
kg C	Kilograms of Carbon
kg CO ₂ eq.	Kilograms of Carbon Dioxide Equivalent
ND	Not Declared
PE	Polyethylene

REFERENCES

EN 15804:2012+A2:2019/AC:2021 GPI 5.0.1	Sustainability of construction works – Environmental product declarations – Core rules for the product category of construction products. CEN.
EPD International (2025)	PCR 2019:14. Construction products and construction services (EN 15804: A2) v2.0.1
EPD International (2025)	General Programme Instructions of the International EPD® System, version 5.0.1
ISO 14044:2006	International Standard ISO 14044: Environmental Management – Life cycle assessment – Requirements and Guidelines.
Life Cycle Assessment of Prisma Button by Prisma Tibro AB, TMC Sweden, 2025-09-19	

VERSION HISTORY

Original Version of the EPD, 2025-09-22

