



CROSSBERRY

# ENVIRONMENTAL PRODUCT DECLARATION

IN ACCORDANCE WITH EN 15804+A2 & ISO 14025

Node luminaire family  
Crossberry Ltd.



## EPD HUB, HUB-5539

Published on 26.02.2026, last updated on 26.02.2026, valid until 25.02.2031

Life Cycle Assessment study has been performed in accordance with the requirements of EN 15804, EPD Hub PCR version 1.2 (24 Mar 2025) and JRC characterization factors EF 3.1.



## GENERAL INFORMATION

### MANUFACTURER

Manufacturer	Crossberry Ltd.
Address	Valletta Buildings, 2nd Floor, Suite 7, South Street, VLT 1103, Valletta, Malta
Contact details	rikard@crossberry.eu
Website	www.crossberry.eu

### EPD STANDARDS, SCOPE AND VERIFICATION

Program operator	EPD Hub, hub@epdhub.com
Reference standard	EN 15804:2012+A2:2019/AC:2021 and ISO 14025
PCR	EPD Hub Core PCR Version 1.2, 24 Mar 2025
Sector	Construction product
Category of EPD	Third party verified EPD
Scope of the EPD	Cradle to gate with options, A4-A5, B6 and modules C1-C4, D
EPD author	Stefan Sekulić & LCA Institut
EPD verification	Independent verification of this EPD and data, according to ISO 14025: <input type="checkbox"/> Internal verification <input checked="" type="checkbox"/> External verification
EPD verifier	Yazan Badour as an authorized verifier for EPD Hub

This EPD is intended for B2B and/or B2C communication. The manufacturer has the sole ownership, liability, and responsibility for the EPD. EPDs within the same

product category but from different programs may not be comparable. EPDs of construction products may not be comparable if they do not comply with EN 15804 and if they are not compared in a building context.

### PRODUCT

Product name	Node luminaire family
Additional labels	Node 1, Node 2 and Node Elips
Place(s) of raw material origin	World
Place of production	China
Place(s) of installation and use	Europe
Period for data	Calendar year 2025
Averaging in EPD	Multiple products
Variation in GWP-fossil for A1-A3 (%)	<50%
A1-A3 Specific data (%)	47,8

### ENVIRONMENTAL DATA SUMMARY

Declared unit	1 unit of luminaires
Declared unit mass	3,6 kg
Mass of packaging	0,4 kg
GWP-fossil, A1-A3 (kgCO <sub>2</sub> e)	66,9
GWP-total, A1-A3 (kgCO <sub>2</sub> e)	66,5
Secondary material, inputs (%)	10,9
Secondary material, outputs (%)	64,3
Total energy use, A1-A3 (kWh)	256
Net freshwater use, A1-A3 (m <sup>3</sup> )	0,57

## PRODUCT AND MANUFACTURER

### ABOUT THE MANUFACTURER

Crossberry Malta Ltd is a Malta-based company established in 2020, specializing in the design, engineering, and technical specification of outdoor lighting systems and electrical infrastructure products.

The management and core technical team bring over 25 years of experience in the electrical, lighting, steel manufacturing, aluminium casting, and cable production industries.

All product development activities, including photometric design, electrical configuration, and technical validation, are conducted at the company's headquarters in Malta.

Manufacturing is performed in qualified production facilities operating under controlled quality management systems. Crossberry Malta Ltd retains full responsibility for product design approval, material specification, supplier evaluation, and conformity with applicable European standards.

The company maintains structured supply chain governance and documentation systems to ensure traceability and alignment with declared environmental performance data.

### PRODUCT DESCRIPTION

The Node luminaire family consists of compact to high-performance LED street luminaires manufactured from corrosion-resistant die-cast aluminium. The product range is designed for a wide variety of outdoor applications, including residential streets, minor and collector roads, pedestrian paths, and urban infrastructure.

The luminaires feature an aerodynamic housing that minimizes wind load and ensures long-term mechanical durability, making them suitable for demanding climate conditions, including Nordic environments. The Node family combines robust construction with energy-efficient LED technology to provide reliable outdoor lighting performance across different infrastructure categories.

Further information can be found at:  
[www.crossberry.eu](http://www.crossberry.eu)

## PRODUCT RAW MATERIAL MAIN COMPOSITION

Raw material category	Amount, mass %	Material origin
Metals	76,5	World
Minerals	18,6	World
Fossil materials	4,9	World
Bio-based materials	-	-

## BIOGENIC CARBON CONTENT

Product's biogenic carbon content at the factory gate

Biogenic carbon content in product, kg C	-
Biogenic carbon content in packaging, kg C	0,169

## FUNCTIONAL UNIT AND SERVICE LIFE

Declared unit	1 unit of luminaires
Mass per declared unit	3,6 kg
Functional unit	Provide lighting that delivers an outgoing artificial luminous flux of 1000 lumens during a reference lifetime of 35000 hour
Reference service life	30

## SUBSTANCES, REACH - VERY HIGH CONCERN

The product does not contain any REACH SVHC substances in amounts greater than 0,1 % (1000 ppm).

# PRODUCT LIFE-CYCLE

## SYSTEM BOUNDARY

This EPD covers the life-cycle modules listed in the following table.

Product stage			Assembly stage		Use stage							End of life stage				Beyond the system boundaries		
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D		
x	x	x	x	x	ND	ND	ND	ND	ND	x	ND	x	x	x	x	x		
Raw materials	Transport	Manufacturing	Transport	Assembly	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	Deconstruction/ demolition	Transport	Waste processing	Disposal	Reuse	Recovery	Recycling

Not declared = ND.

## MANUFACTURING AND PACKAGING (A1-A3)

The environmental impacts considered for the product stage include the production of all raw materials used in manufacturing, as well as packaging and ancillary materials. The assessment also covers upstream transport of materials to the production site and all manufacturing processes carried out within the integrated facility. These processes include material processing and forming, mechanical finishing, surface treatment (including powder coating), final assembly, electrical and functional testing, internal material handling, and quality control. Energy consumption from electricity and fuels used for production equipment, auxiliary systems, and lighting is included.

The study further accounts for waste generated during manufacturing and material losses occurring throughout production processes. The finished product is packaged in cardboard boxes to ensure protection during transport and storage. A conservative assumption of 1% product loss is applied in the manufacturing stage to account for material losses and production waste generated during processing and assembly. For modelling purposes, this 1% manufacturing loss is assumed to be disposed of via landfill. A standard transport distance assumption of 100 km is applied for waste transport to the treatment facility.

## TRANSPORT AND INSTALLATION (A4-A5)

**Transport (A4)** - Module A4 covers the transport of the finished product from the manufacturing facility to the construction site. The associated environmental impacts result from fuel consumption during transportation, including direct exhaust emissions and upstream impacts from fuel production and related infrastructure.

**Installation (A5)** - No additional materials or energy are required during installation. No direct emissions occur and no installation-related product waste is generated at the construction site.

## PRODUCT USE AND MAINTENANCE (B1-B7)

Based on a nominal power of 5 W, a reference service life of 30 years, and an annual operating time of 3,600 hours, the total electricity consumption amounts to 540 kWh over the service life. No additional maintenance materials, water use, or operational emissions are associated with the use stage. Modules B1–B5 and B7 are not relevant for this product.

### PRODUCT END OF LIFE (C1-C4, D)

At the end of life, the plastic components of the product are treated as follows: 40% is recycled, 37% is incinerated with energy recovery, and 23% is landfilled.

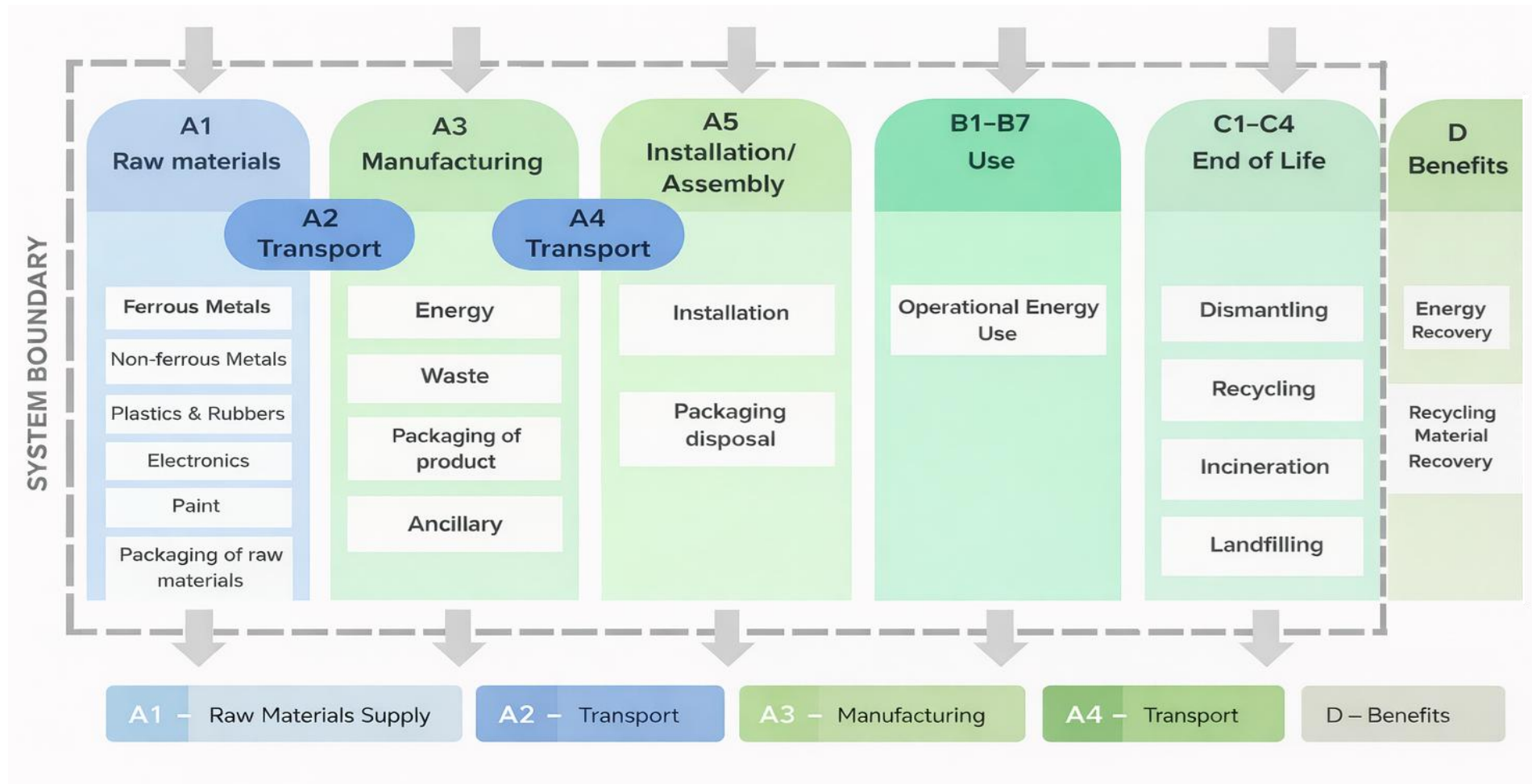
The steel components are predominantly recycled, with 81% directed to recycling processes and 19% disposed of via landfill.

An average transport distance of 50 km is assumed for waste transport to the respective treatment facilities.

The benefits and loads beyond the system boundary (Module D) account for the substitution effects from recycled steel and plastic, as well as energy recovery from incineration.



## SYSTEM DIAGRAM



## LIFE-CYCLE ASSESSMENT

### CUT-OFF CRITERIA

The study does not exclude any modules or processes which are stated mandatory in the reference standard and the applied PCR. The study does not exclude any hazardous materials or substances. The study includes all major raw material and energy consumption. All inputs and outputs of the unit processes, for which data is available for, are included in the calculation. There is no neglected unit process more than 1% of total mass or energy flows. The module specific total neglected input and output flows also do not exceed 5% of energy usage or mass.

The production of capital equipment, construction activities, and infrastructure, maintenance and operation of capital equipment, personnel-related activities, energy and water use related to company management and sales activities are excluded.

### VALIDATION OF DATA

Data collection for production, transport, and packaging was conducted using time and site-specific information, as defined in the general information section on page 1 and 2. Upstream process calculations rely on generic data as defined in the Bibliography section. Manufacturer-provided specific and generic data were used for the product's manufacturing stage. The analysis was performed in One Click LCA EPD Generator, with the 'Cut-Off, EN 15804+A2' allocation method, and characterization factors according to EN 15804:2012+A2:2019/AC:2021 and JRC EF 3.1.

### ALLOCATION, ESTIMATES AND ASSUMPTIONS

Allocation is required if some material, energy, and waste data cannot be measured separately for the product under investigation. All allocations are done as per the reference standards and the applied PCR. In this study, allocation has been done in the following ways:

Data type	Allocation
Raw materials	Allocated by mass
Packaging material	Allocated by mass
Ancillary materials	Allocated by mass
Manufacturing energy and waste	Allocated by mass

### PRODUCT & MANUFACTURING SITES GROUPING

Type of grouping	Multiple products
Grouping method	Based on average results of product group - by total mass
Variation in GWP-fossil for A1-A3, %	<50%

All products are manufactured in the same production facility and share the same material composition. The difference between the models relates only to the nominal light output range.

Products included in this EPD are: Node 1 (5–70 W), Node Elips (5–70 W), and Node 2 (70–200 W).



## LCA SOFTWARE AND BIBLIOGRAPHY

This EPD has been created using One Click LCA EPD Generator for EPD Hub V3 and EPD Process Certification v3.2.3. The LCA and EPD have been prepared according to the reference standards and ISO 14040/14044. The EPD Generator uses Ecoinvent v3.10.1/3.11 and One Click LCA databases as sources of environmental data. Allocation used in Ecoinvent 3.10.1/3.11 environmental data sources follow the methodology 'allocation, Cut-off, EN 15804+A2'.

## ENVIRONMENTAL IMPACT DATA

The estimated impact results are only relative statements which do not indicate the end points of the impact categories, exceeding threshold values, safety margins or risks.

### CORE ENVIRONMENTAL IMPACT INDICATORS – EN 15804+A2, EF 3.1

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
GWP – total <sup>1)</sup>	kg CO <sub>2</sub> e	4,62E+01	8,83E+00	1,15E+01	6,65E+01	8,51E-01	6,49E-01	ND	ND	ND	ND	ND	6,07E+01	ND	0,00E+00	2,96E-02	3,53E-01	9,91E-03	5,15E+00
GWP – fossil	kg CO <sub>2</sub> e	4,59E+01	8,83E+00	1,21E+01	6,69E+01	8,51E-01	3,15E-02	ND	ND	ND	ND	ND	6,06E+01	ND	0,00E+00	2,96E-02	2,98E-01	9,91E-03	5,02E+00
GWP – biogenic	kg CO <sub>2</sub> e	2,15E-01	1,70E-03	-6,16E-01	-4,00E-01	1,69E-04	6,18E-01	ND	ND	ND	ND	ND	1,31E-02	ND	0,00E+00	5,95E-06	5,42E-02	3,76E-06	1,29E-01
GWP – LULUC	kg CO <sub>2</sub> e	6,98E-02	3,95E-03	3,19E-03	7,70E-02	3,01E-04	1,03E-05	ND	ND	ND	ND	ND	6,10E-02	ND	0,00E+00	1,07E-05	4,61E-05	2,28E-06	9,11E-03
Ozone depletion pot.	kg CFC <sub>-11</sub> e	2,69E-06	1,30E-07	6,83E-08	2,89E-06	1,69E-08	1,29E-10	ND	ND	ND	ND	ND	1,11E-05	ND	0,00E+00	5,73E-10	3,98E-10	1,16E-10	-1,20E-06
Acidification potential	mol H <sup>+</sup> e	3,31E-01	3,01E-02	7,61E-02	4,37E-01	2,66E-03	5,41E-05	ND	ND	ND	ND	ND	4,41E-01	ND	0,00E+00	9,34E-05	2,77E-04	3,38E-05	3,75E-02
EP-freshwater <sup>2)</sup>	kg Pe	3,18E-02	6,87E-04	2,62E-03	3,51E-02	5,64E-05	4,09E-06	ND	ND	ND	ND	ND	5,34E-03	ND	0,00E+00	2,00E-06	2,27E-05	3,80E-07	8,81E-03
EP-marine	kg Ne	5,23E-02	9,89E-03	9,18E-03	7,13E-02	8,97E-04	2,25E-05	ND	ND	ND	ND	ND	5,39E-02	ND	0,00E+00	3,14E-05	2,07E-04	2,47E-05	5,85E-03
EP-terrestrial	mol Ne	5,58E-01	1,08E-01	9,16E-02	7,57E-01	9,76E-03	1,75E-04	ND	ND	ND	ND	ND	5,81E-01	ND	0,00E+00	3,42E-04	8,43E-04	1,47E-04	5,88E-02
POCP (“smog”) <sup>3)</sup>	kg NMVOCe	1,92E-01	4,44E-02	2,61E-02	2,62E-01	4,17E-03	5,67E-05	ND	ND	ND	ND	ND	1,79E-01	ND	0,00E+00	1,45E-04	2,38E-04	5,22E-05	1,72E-02
ADP-minerals & metals <sup>4)</sup>	kg Sbe	6,73E-03	2,46E-05	1,25E-06	6,76E-03	2,78E-06	9,16E-08	ND	ND	ND	ND	ND	2,93E-04	ND	0,00E+00	9,54E-08	9,37E-07	6,17E-09	2,35E-04
ADP-fossil resources	MJ	5,95E+02	1,28E+02	1,35E+02	8,58E+02	1,20E+01	1,34E-01	ND	ND	ND	ND	ND	8,30E+02	ND	0,00E+00	4,17E-01	4,32E-01	1,02E-01	6,43E+01
Water use <sup>5)</sup>	m <sup>3</sup> e depr.	1,39E+01	6,33E-01	1,09E+02	1,23E+02	5,87E-02	4,75E-03	ND	ND	ND	ND	ND	5,45E+03	ND	0,00E+00	2,05E-03	1,88E-02	4,05E-03	2,96E+00

1) GWP = Global Warming Potential; 2) EP = Eutrophication potential. Required characterisation method and data are in kg P-eq. Multiply by 3,07 to get PO<sub>4</sub>e; 3) POCP = Photochemical ozone formation; 4) ADP = Abiotic depletion potential; 5) EN 15804+A2 disclaimer for Abiotic depletion and Water use and optional indicators except Particulate matter and Ionizing radiation, human health. The results of these environmental impact indicators shall be used with care as the uncertainties on these results are high or as there is limited experience with the indicator.

## USE OF NATURAL RESOURCES

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Renew. PER as energy <sup>8)</sup>	MJ	5,82E+01	1,76E+00	4,29E+00	6,42E+01	2,07E-01	-6,12E+00	ND	ND	ND	ND	ND	1,10E+03	ND	0,00E+00	7,05E-03	7,15E-02	9,98E-04	2,87E+01
Renew. PER as material	MJ	2,40E+00	0,00E+00	6,34E+00	8,75E+00	0,00E+00	-6,37E+00	ND	ND	ND	ND	ND	0,00E+00	ND	0,00E+00	0,00E+00	-1,68E+00	-6,95E-01	0,00E+00
Total use of renew. PER	MJ	6,06E+01	1,76E+00	1,06E+01	7,30E+01	2,07E-01	-1,25E+01	ND	ND	ND	ND	ND	1,10E+03	ND	0,00E+00	7,05E-03	-1,61E+00	-6,94E-01	2,87E+01
Non-re. PER as energy	MJ	5,91E+02	1,28E+02	1,37E+02	8,56E+02	1,20E+01	-8,31E-02	ND	ND	ND	ND	ND	2,63E+03	ND	0,00E+00	4,17E-01	-6,19E+00	-1,82E+00	6,44E+01
Non-re. PER as material	MJ	3,79E+00	0,00E+00	-3,75E-02	3,75E+00	0,00E+00	0,00E+00	ND	ND	ND	ND	ND	0,00E+00	ND	0,00E+00	0,00E+00	-2,34E+00	-1,41E+00	-9,24E-02
Total use of non-re. PER	MJ	5,94E+02	1,28E+02	1,37E+02	8,59E+02	1,20E+01	-8,31E-02	ND	ND	ND	ND	ND	2,63E+03	ND	0,00E+00	4,17E-01	-8,53E+00	-3,23E+00	6,43E+01
Secondary materials	kg	3,92E-01	5,45E-02	1,10E-01	5,56E-01	5,47E-03	2,16E-04	ND	ND	ND	ND	ND	0,00E+00	ND	0,00E+00	1,90E-04	9,40E-04	2,82E-05	1,09E+00
Renew. secondary fuels	MJ	1,01E-02	6,93E-04	2,37E-03	1,32E-02	6,91E-05	1,36E-06	ND	ND	ND	ND	ND	0,00E+00	ND	0,00E+00	2,40E-06	5,66E-05	5,08E-07	4,74E-03
Non-ren. secondary fuels	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	ND	ND	ND	ND	ND	0,00E+00	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Use of net fresh water	m <sup>3</sup>	3,63E-01	1,89E-02	1,90E-01	5,72E-01	1,61E-03	8,98E-05	ND	ND	ND	ND	ND	9,43E-01	ND	0,00E+00	5,67E-05	2,52E-04	-9,82E-05	6,78E-02

8) PER = Primary energy resources.

## END OF LIFE – WASTE

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Hazardous waste	kg	7,35E+00	2,17E-01	1,38E-02	7,58E+00	1,71E-02	2,39E-03	ND	ND	ND	ND	ND	7,60E-03	ND	0,00E+00	6,10E-04	7,97E-03	1,26E-04	9,02E+00
Non-hazardous waste	kg	1,42E+02	4,02E+00	1,11E+00	1,47E+02	3,62E-01	7,58E-02	ND	ND	ND	ND	ND	3,75E+00	ND	0,00E+00	1,27E-02	3,46E-01	1,32E-01	4,75E+01
Radioactive waste	kg	1,12E-03	2,73E-05	3,22E-05	1,18E-03	3,79E-06	2,06E-07	ND	ND	ND	ND	ND	2,90E-02	ND	0,00E+00	1,28E-07	1,44E-06	1,52E-08	1,84E-04

## END OF LIFE – OUTPUT FLOWS

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Components for re-use	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	ND	ND	ND	ND	ND	0,00E+00	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Materials for recycling	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	3,28E-01	ND	ND	ND	ND	ND	0,00E+00	ND	0,00E+00	0,00E+00	2,66E+00	0,00E+00	0,00E+00
Materials for energy rec	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	ND	ND	ND	ND	ND	0,00E+00	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Exported energy	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	ND	ND	ND	ND	ND	0,00E+00	ND	0,00E+00	0,00E+00	1,26E+00	0,00E+00	0,00E+00
Exported energy – Electricity	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	ND	ND	ND	ND	ND	0,00E+00	ND	0,00E+00	0,00E+00	5,30E-01	0,00E+00	0,00E+00
Exported energy – Heat	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	ND	ND	ND	ND	ND	0,00E+00	ND	0,00E+00	0,00E+00	7,30E-01	0,00E+00	0,00E+00

## ENVIRONMENTAL IMPACTS – EN 15804+A1, CML

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Global Warming Pot.	kg CO <sub>2</sub> e	4,57E+01	8,78E+00	1,20E+01	6,65E+01	8,46E-01	3,43E-02	ND	ND	ND	ND	ND	6,04E+01	ND	0,00E+00	2,94E-02	3,24E-01	9,62E-03	5,02E+00
Ozone depletion Pot.	kg CFC <sub>11</sub> e	2,29E-06	1,04E-07	6,12E-08	2,46E-06	1,35E-08	1,06E-10	ND	ND	ND	ND	ND	1,84E-05	ND	0,00E+00	4,56E-10	3,37E-10	9,25E-11	-7,97E-07
Acidification	kg SO <sub>2</sub> e	2,73E-01	2,30E-02	6,58E-02	3,62E-01	2,02E-03	4,14E-05	ND	ND	ND	ND	ND	3,77E-01	ND	0,00E+00	7,10E-05	2,14E-04	2,48E-05	3,18E-02
Eutrophication	kg PO <sub>4</sub> <sup>3</sup> e	9,27E-02	5,60E-03	1,10E-02	1,09E-01	5,14E-04	1,35E-05	ND	ND	ND	ND	ND	4,54E-02	ND	0,00E+00	1,80E-05	1,09E-04	8,46E-06	4,70E-03
POCP (“smog”)	kg C <sub>2</sub> H <sub>4</sub> e	2,03E-02	2,05E-03	2,63E-03	2,50E-02	1,93E-04	5,03E-06	ND	ND	ND	ND	ND	1,60E-02	ND	0,00E+00	6,72E-06	2,45E-05	3,16E-06	6,20E-04
ADP-elements	kg Sbe	6,73E-03	2,40E-05	1,19E-06	6,76E-03	2,72E-06	8,95E-08	ND	ND	ND	ND	ND	2,93E-04	ND	0,00E+00	9,32E-08	9,30E-07	6,02E-09	2,35E-04
ADP-fossil	MJ	5,32E+02	1,26E+02	1,34E+02	7,92E+02	1,17E+01	1,20E-01	ND	ND	ND	ND	ND	8,30E+02	ND	0,00E+00	4,09E-01	3,33E-01	1,01E-01	5,28E+01

## ADDITIONAL INDICATOR – GWP-GHG

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
GWP-GHG <sup>9)</sup>	kg CO <sub>2</sub> e	4,60E+01	8,83E+00	1,21E+01	6,69E+01	8,51E-01	3,15E-02	ND	ND	ND	ND	ND	6,06E+01	ND	0,00E+00	2,96E-02	2,98E-01	9,91E-03	5,03E+00

9) This indicator includes all greenhouse gases excluding biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. In addition, the characterisation factors for the flows – CH<sub>4</sub> fossil, CH<sub>4</sub> biogenic and Dinitrogen monoxide – were updated. This indicator is identical to the GWP-total of EN 15804:2012+A2:2019 except that the characterisation factor for biogenic CO<sub>2</sub> is set to zero.

## SCENARIO DOCUMENTATION

### DATA SOURCES

#### Manufacturing energy scenario documentation

1. Electricity, consumption mix w/o renewables, China, 2023, China, One Click LCA, 1.15 kgCO<sub>2</sub>e/kWh

#### Transport scenario documentation A4

Scenario parameter	Value
Capacity utilization (including empty return) %	100
Bulk density of transported products	9,41E+01
Volume capacity utilization factor	1

#### Installation scenario documentation - A5 (Installation waste)

1. Treatment of municipal solid waste, municipal incineration, Ecoinvent, 0.036 kg
2. Treatment of waste paperboard, unsorted, sorting, Ecoinvent, Materials for recycling, 0.328 kg
3. Treatment of waste paperboard, inert material landfill, Ecoinvent, 0.036 kg

#### End-of-life scenario documentation - C1-C4 (Data source)

Scenario information	Value
Scenario assumptions e.g. transportation	At end of life, plastic components are treated as follows: 40% recycled, 37% incinerated with energy recovery, and 23% landfilled. Steel components are 81% recycled and 19% landfilled. An average transport distance of 50 km is assumed

#### Use stages scenario documentation - B6-B7 (Energy data source)

Electricity, Sweden, residual mix, 2024 (One Click LCA) 540 kWh  
(5 W \* 30 years \* 3600 hours per year)

### SCALING TABLE

The declared results in this EPD are based on the reference product Node 1 (3.6 kg). Environmental impacts of other products within the same family shall be calculated proportionally to mass, using the following scaling factors:

Product	Mass	GWP fossil (A1-A3) factor
Node 1	3.6	1
Node 2	5.04	1.4
Node Elips	5.41	1.5

Example:

Environmental impact of Node 2 = Declared impact × 1.4 (GWP fossil (A1-A3) factor)

## THIRD-PARTY VERIFICATION STATEMENT

EPD Hub declares that this EPD is verified in accordance with ISO 14025 by an independent, third-party verifier. The project report on the Life Cycle Assessment and the report(s) on features of environmental relevance are filed at EPD Hub. EPD Hub PCR and ECO Platform verification checklist are used.

EPD Hub is not able to identify any unjustified deviations from the PCR and EN 15804+A2 in the Environmental Product Declaration and its project report.

EPD Hub maintains its independence as a third-party body; it was not involved in the execution of the LCA or in the development of the declaration and has no conflicts of interest regarding this verification.

The company-specific data and upstream and downstream data have been examined as regards plausibility and consistency. The publisher is responsible for ensuring the factual integrity and legal compliance of this declaration.

The software used in creation of this LCA and EPD is verified by EPD Hub to conform to the procedural and methodological requirements outlined in ISO 14025:2010, ISO 14040/14044, EN 15804+A2, and EPD Hub Core Product Category Rules and General Program Instructions.

### Verified tools

Tool verifier: Magaly Gonzalez Vazquez

Tool verification validity: 27 March 2025 - 26 March 2028

Yazan Badour as an authorized verifier for EPD Hub Limited 26.02.2026

