ENVIRONMENTAL PRODUCT DECLARATION

IN ACCORDANCE WITH EN 15804+A2 & ISO 14025 / ISO 21930

DLC LCU Z5
Datek Light Control AS

EPD HUB, HUB-2222
Published on 22.11.2024, last updated on 22.11.2024, valid until 22.11.2029

Created with One Click LCA

GENERAL INFORMATION

MANUFACTURER

Manufacturer	Datek Light Control AS
Address	Voldgata 8, 2000 Lillestrøm Norway
Contact details	datek@datek.no
Website	https://www.datek.no/city

EPD STANDARDS, SCOPE AND VERIFICATION

Program operator	EPD Hub, hub@epdhub.com
Reference standard	EN 15804+A2:2019 and ISO 14025
PCR	EPD Hub Core PCR Version 1.1, 5 Dec 2023
Sector	Electrical product
Category of EPD	Third party verified EPD
Scope of the EPD	Cradle to gate with options, A4-B7, and modules C1-C4, D
EPD author	Marcus Hillig
EPD verification	Independent verification of this EPD and data, according to ISO 14025: ☐ Internal verification ☑ External verification
EPD verifier	Imane Uald lamkaddam, as an authorized verifier acting for EPD Hub Limited

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	DLC LCU Z5
Additional labels	
Product reference	101510 - DLC LCU Z5 Zhaga
Place of production	Shenzhen, Guangdong, China
Period for data	calendar year 2023
Averaging in EPD	No averaging
Variation in GWP-fossil for A1-A3	n/a %

ENVIRONMENTAL DATA SUMMARY

Declared unit	1 unit of DLC LCU Z5 Zhaga
Declared unit mass	0.069 kg
GWP-fossil, A1-A3 ($kgCO_2e$)	2,77E+00
GWP-total, A1-A3 ($kgCO_2e$)	2,74E+00
Secondary material, inputs (%)	11.8
Secondary material, outputs (%)	8.41
Total energy use, A1-A3 (kWh)	11.2
Net freshwater use, A1-A3 (m^3)	0.02

PRODUCT AND MANUFACTURER

ABOUT THE MANUFACTURER

Datek Light Control AS is a Norwegian company specializing in Smart City IoT solutions. With more than 15 years' experience in light control technology we provide systems designed to optimize energy use, streamline operation and maintenance, and minimize unwanted light pollution. Serving markets in Scandinavia and UK we manage over 11 000 lighting projects on roads, sports fields and various outdoor installations.

PRODUCT DESCRIPTION

DLC LCU Z5 Zhaga is a component of Datek Light Control's versatile control system for outdoor lighting. Together with Datek Gateway IoT and a cloud-based server, the lighting control system is designed to optimize energy use, streamline operation and maintenance and minimize unwanted light pollution.

Technical description
Datek LCU Z5 Zhaga is intended for integration with LED light sources that have integrated Zhaga Book 18 standard connector and supports Dali 2.0 and D4i. These standards simplifies integration between control system and luminaire so that the customer can freely choose luminaire manufacturer without concerns about compatibility with the Datek Light Control solution.
The control node uses ZigBee 2.4 GHz Mesh radio for communication. With local intelligence and built-in light meter, the unit is self provided for light switching should an error occur in the communication chain.
The unit has an internal antenna and drives with power directly from the compatible LED driver in the luminaire. If power outage occurs in the pole, a small amount of stored energy will be used to send a message to the server about this (Last gasp).

Datek is closely following the international standardization procedures within the lighting industry. Upgrades and new functionality is constantly being developed and Datek continuously implements changes driven by e.g. www.dali-alliance.org and www.zhagastandard.org.
With OTA (Over-the-air) software updates, the customer can be assured that the unit is continuously upgraded with the latest version of software containing new and updated features when these are available.

Further information can be found at https://www.datek.no/city.

PRODUCT RAW MATERIAL MAIN COMPOSITION

Raw material category	Amount, mass %	Material origin
Metals	16	Asia
Minerals	13	Asia
Fossil materials	71	Asia
Bio-based materials	0	

BIOGENIC CARBON CONTENT

Product's biogenic carbon content at the factory gate

Biogenic carbon content in product, kg C	0
Biogenic carbon content in packaging, kg C	0.0072

FUNCTIONAL UNIT AND SERVICE LIFE

Declared unit	1 unit of DLC LCU Z5 Zhaga
Mass per declared unit	0.069 kg
Functional unit	one unit DLC LCU Z5 with a reference lifetime of 15 years
Reference service life	15

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	MND	MND	MND	MND	MND	x	MND	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

Modules not declared = MND. Modules not relevant = MNR

MANUFACTURING AND PACKAGING (A1-A3)

The environmental impacts considered for the product stage cover the manufacturing of raw materials used in the production as well as packaging materials and other ancillary materials. Also, fuels used by machines, and handling of waste formed in the production processes at the manufacturing facilities are included in this stage. The study also considers the material losses occurring during the manufacturing processes as well as losses during electricity transmission.

The product is made of metals, plastics and electronic components. The materials are transported to the production facility, where the main manufacturing processes include SMT and THT before being assembled together. The finished product is packaged in cardboard before being sent to the installation site.

TRANSPORT AND INSTALLATION (A4-A5)

Transportation impacts occurred from final products delivery to construction site (A4) cover fuel direct exhaust emissions, environmental impacts of fuel production, as well as related infrastructure emissions.

Transportation distance is defined according to the PCR. Average distance of transportation from production plant to building site is assumed as 8.600 km air transport and in average 491 km of road transport. Road transport is assumed to be worst case EURO6 lorries, while in reality a large part of road transport is by zero emission electric trucks. Vehicle capacity utilization volume factor is assumed to be 100%, which means full load. In reality, it may vary but as role of transportation emissions in total results is small, the variety in load is assumed to be negligible. Empty returns are not taken into account as it is assumed that return trip is used by the transportation company to serve the needs of other clients. Transportation does not cause losses as products are packaged properly. Also, volume capacity utilisation factor is assumed to be 100% for the nested packaged products. Transportation impacts that occur from delivery of the product cover direct exhaust emissions of fuel, environmental impacts of fuel production, as well as related infrastructure emissions. Environmental impacts from installation into the building include waste packaging materials (A5) and release of biogenic carbon dioxide from cardboard. The impacts of energy consumption and the used ancillary materials during installation are considered negligible, as the product is installed by hand without any tools. EoL of the packaging references: Eurostat & PSR-0014 v2 (2023) for paperboard recycling (82%),

incineration (9%), landfill (9%). Transportation distance to e-waste handling facility is estimated as 50 km and the transportation method is assumed as lorry.

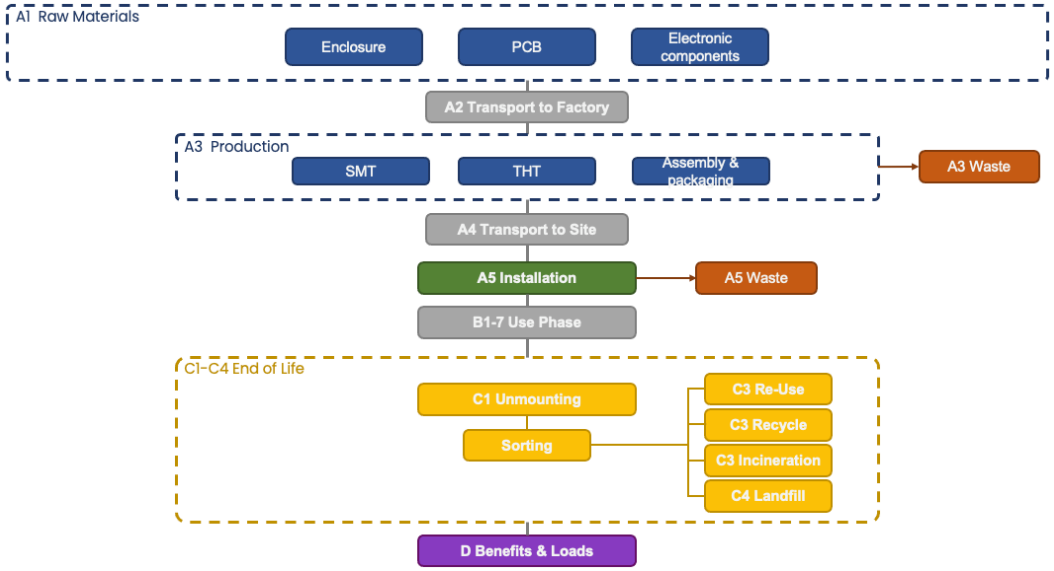
PRODUCT USE AND MAINTENANCE (B1-B7)

This EPD only covers operational energy use during the use phase. During the assumed product reference lifetime there is no maintenance, repairs or replacements to be expected. Air, soil, and water impacts during the use phase have not been identified.
Air, soil, and water impacts during the use phase have not been studied.

PRODUCT END OF LIFE (C1-C4, D)

Consumption of energy and natural resources in demolition process is assumed to be negligible. It is assumed that the waste is collected separately and transported to the waste treatment centre. Transportation distance to treatment is assumed as 50 km and the transportation method is assumed to be lorry (C2). According to EN 50693:2019, the sequence of treatment operations occurring to the product shall include de-pollution, fractions separation and preparation (dismantling, crushing, shredding, sorting), recycling, other material recovery, energy recovery and disposal. In this study, the default values from table G.4 of EN 50693 is used for treating materials in different waste treatment methods. Due to the material and energy recovery potential of parts in the lighting system, the end-of-life product is converted into recycled raw materials, while the energy recovered from incineration displaces electricity and heat production (D). The benefits and loads of incineration and recycling are included in Module D.

MANUFACTURING PROCESS



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.

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	No allocation
Packaging material	Allocated by mass or volume
Ancillary materials	Allocated by mass or volume
Manufacturing energy and waste	Allocated by mass or volume

AVERAGES AND VARIABILITY

Type of average	No averaging
Averaging method	Not applicable
Variation in GWP-fossil for A1-A3	n/a %

This EPD is product and factory specific and does not contain average calculations.

LCA SOFTWARE AND BIBLIOGRAPHY

This EPD has been created using One Click LCA EPD Generator. The LCA and EPD have been prepared according to the reference standards and ISO 14040/14044. The EPD Generator uses Ecoinvent v3.10 and One Click LCA databases as sources of environmental data.

ENVIRONMENTAL IMPACT DATA

CORE ENVIRONMENTAL IMPACT INDICATORS – EN 15804+A2, PEF

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
GWP – total[1)]	kg CO_2e	2,58E+00	1,33E-02	1,51E-01	2,74E+00	6,36E-01	2,72E-02	MND	MND	MND	MND	MND	3,14E+00	MND	MNR	8,19E-04	3,64E-03	4,44E-04	-8,88E-02
GWP – fossil	kg CO_2e	2,58E+00	1,33E-02	1,77E-01	2,77E+00	6,36E-01	5,23E-04	MND	MND	MND	MND	MND	3,13E+00	MND	MNR	8,18E-04	3,64E-03	4,44E-04	-6,62E-02
GWP – biogenic	kg CO_2e	0,00E+00	0,00E+00	-2,67E-02	-2,67E-02	0,00E+00	2,67E-02	MND	MND	MND	MND	MND	0,00E+00	MND	MNR	0,00E+00	0,00E+00	0,00E+00	-2,20E-02
GWP – LULUC	kg CO_2e	3,43E-03	5,35E-06	4,46E-04	3,88E-03	3,90E-05	2,98E-07	MND	MND	MND	MND	MND	8,60E-03	MND	MNR	2,80E-07	4,86E-06	2,27E-07	-5,84E-04
Ozone depletion pot.	kg $CFC\text{-}_{11}$e	4,41E-07	2,00E-10	1,01E-09	4,42E-07	9,83E-09	3,45E-12	MND	MND	MND	MND	MND	1,25E-07	MND	MNR	1,55E-11	2,51E-11	1,22E-11	-7,04E-10
Acidification potential	mol H^+e	1,83E-02	3,11E-05	1,12E-03	1,95E-02	2,68E-03	2,33E-06	MND	MND	MND	MND	MND	2,60E-02	MND	MNR	2,49E-06	2,07E-05	3,05E-06	-8,33E-03
EP-freshwater[2)]	kg Pe	4,76E-04	1,22E-07	5,12E-06	4,82E-04	1,09E-06	1,54E-08	MND	MND	MND	MND	MND	1,28E-04	MND	MNR	6,53E-09	1,78E-07	4,59E-09	-2,51E-05
EP-marine	kg Ne	3,26E-03	7,26E-06	1,98E-04	3,46E-03	1,08E-03	3,46E-06	MND	MND	MND	MND	MND	2,89E-03	MND	MNR	8,01E-07	3,57E-06	1,16E-06	-3,19E-04
EP-terrestrial	mol Ne	3,78E-02	8,06E-05	2,13E-03	4,00E-02	1,18E-02	7,21E-06	MND	MND	MND	MND	MND	3,67E-02	MND	MNR	8,83E-06	4,22E-05	1,27E-05	-4,59E-03
POCP ("smog")[3)]	kg NMVOCe	1,17E-02	4,38E-05	6,03E-04	1,23E-02	3,79E-03	2,62E-06	MND	MND	MND	MND	MND	1,08E-02	MND	MNR	3,87E-06	1,19E-05	4,52E-06	-1,36E-03
ADP-minerals & metals[4)]	kg Sbe	8,96E-04	4,44E-08	3,31E-07	8,96E-04	1,44E-07	3,91E-09	MND	MND	MND	MND	MND	2,54E-04	MND	MNR	2,60E-09	4,12E-08	8,10E-10	-1,35E-04
ADP-fossil resources	MJ	3,47E+01	1,86E-01	1,78E+00	3,67E+01	8,43E+00	3,84E-03	MND	MND	MND	MND	MND	6,36E+01	MND	MNR	1,16E-02	4,63E-02	1,03E-02	-7,30E-01
Water use[5)]	m^3e depr.	8,14E-01	8,51E-04	2,98E-02	8,45E-01	1,12E-02	1,72E-04	MND	MND	MND	MND	MND	7,47E+01	MND	MNR	5,59E-05	7,98E-04	3,48E-05	-4,18E-02

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 PO4e; 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.

ADDITIONAL (OPTIONAL) ENVIRONMENTAL IMPACT INDICATORS – EN 15804+A2, PEF

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Particulate matter	Incidence	1,38E-07	9,82E-10	1,46E-08	1,53E-07	6,37E-09	2,37E-11	MND	MND	MND	MND	MND	1,36E-07	MND	MNR	6,68E-11	1,90E-10	7,15E-11	-1,48E-08
Ionizing radiation[6)]	kBq U235e	1,05E-01	6,23E-05	1,57E-03	1,07E-01	9,40E-04	1,27E-05	MND	MND	MND	MND	MND	1,05E+00	MND	MNR	5,03E-06	1,77E-04	2,80E-06	-1,28E-03
Ecotoxicity (freshwater)	CTUe	7,33E+01	5,02E-02	6,15E-01	7,40E+01	5,60E-01	2,52E-02	MND	MND	MND	MND	MND	4,00E+01	MND	MNR	3,05E-03	1,52E-02	2,32E-03	-7,77E+00
Human toxicity, cancer	CTUh	7,74E-09	7,11E-11	2,52E-10	8,06E-09	6,27E-10	7,44E-12	MND	MND	MND	MND	MND	2,32E-08	MND	MNR	5,42E-12	9,65E-12	3,79E-12	-1,54E-09
Human tox. non-cancer	CTUh	9,34E-08	1,20E-10	1,20E-09	9,48E-08	6,46E-09	2,70E-11	MND	MND	MND	MND	MND	2,13E-07	MND	MNR	7,48E-12	1,15E-10	4,73E-11	-1,22E-07
SQP[7)]	-	1,16E+01	1,12E-01	2,36E+00	1,41E+01	5,89E-01	3,20E-03	MND	MND	MND	MND	MND	3,73E+01	MND	MNR	7,82E-03	1,72E-02	2,04E-02	-2,52E+00

6) EN 15804+A2 disclaimer for Ionizing radiation, human health. 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; 7) SQP = Land use related impacts/soil quality.

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[8)]	MJ	3,54E+00	2,53E-03	1,38E+00	4,92E+00	2,85E-02	-3,11E-01	MND	MND	MND	MND	MND	2,60E+02	MND	MNR	1,88E-04	6,24E-03	1,08E-04	-1,09E-01
Renew. PER as material	MJ	0,00E+00	0,00E+00	2,21E-01	2,21E-01	0,00E+00	-2,21E-01	MND	MND	MND	MND	MND	0,00E+00	MND	MNR	0,00E+00	0,00E+00	0,00E+00	1,80E-01
Total use of renew. PER	MJ	3,54E+00	2,53E-03	1,60E+00	5,14E+00	2,85E-02	-5,33E-01	MND	MND	MND	MND	MND	2,60E+02	MND	MNR	1,88E-04	6,24E-03	1,08E-04	7,10E-02
Non-re. PER as energy	MJ	3,34E+01	1,86E-01	1,77E+00	3,54E+01	8,43E+00	3,84E-03	MND	MND	MND	MND	MND	6,36E+01	MND	MNR	1,16E-02	4,63E-02	1,03E-02	-7,39E-01
Non-re. PER as material	MJ	1,27E+00	0,00E+00	1,26E-02	1,29E+00	0,00E+00	-1,26E-02	MND	MND	MND	MND	MND	0,00E+00	MND	MNR	0,00E+00	0,00E+00	-1,27E+00	1,00E-02
Total use of non-re. PER	MJ	3,47E+01	1,86E-01	1,78E+00	3,67E+01	8,43E+00	-8,73E-03	MND	MND	MND	MND	MND	6,36E+01	MND	MNR	1,16E-02	4,63E-02	-1,26E+00	-7,29E-01
Secondary materials	kg	8,13E-03	8,49E-05	1,46E-03	9,67E-03	7,78E-04	9,38E-06	MND	MND	MND	MND	MND	4,94E-02	MND	MNR	5,23E-06	1,41E-05	3,60E-06	8,65E-03
Renew. secondary fuels	MJ	7,53E-04	1,08E-06	3,95E-03	4,70E-03	3,94E-06	4,49E-08	MND	MND	MND	MND	MND	1,94E-04	MND	MNR	6,61E-08	2,05E-06	7,48E-08	-1,51E-03
Non-ren. secondary fuels	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	MND	MND	MND	MND	0,00E+00	MND	MNR	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Use of net fresh water	m^3	2,15E-02	2,49E-05	7,10E-04	2,23E-02	3,77E-04	-4,06E-06	MND	MND	MND	MND	MND	1,75E+00	MND	MNR	1,57E-06	2,29E-05	1,04E-05	-2,32E-03

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	2,32E-01	3,26E-04	1,93E-02	2,52E-01	3,33E-03	1,14E-04	MND	MND	MND	MND	MND	2,49E-01	MND	MNR	1,73E-05	3,31E-04	2,91E-03	-3,37E-02
Non-hazardous waste	kg	7,83E+00	6,16E-03	1,93E-01	8,03E+00	5,91E-02	1,27E-02	MND	MND	MND	MND	MND	9,19E+00	MND	MNR	3,55E-04	8,20E-03	8,38E-03	-3,12E+00
Radioactive waste	kg	6,78E-05	3,92E-08	9,86E-07	6,88E-05	5,59E-07	9,86E-09	MND	MND	MND	MND	MND	4,73E-04	MND	MNR	3,46E-09	1,14E-07	1,79E-09	-4,27E-07

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	MND	MND	MND	MND	MND	0,00E+00	MND	MNR	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	1,60E-02	MND	MND	MND	MND	MND	0,00E+00	MND	MNR	0,00E+00	5,80E-03	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	MND	MND	MND	MND	MND	0,00E+00	MND	MNR	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	9,60E-03	MND	MND	MND	MND	MND	0,00E+00	MND	MNR	0,00E+00	0,00E+00	0,00E+00	0,00E+00

ENVIRONMENTAL IMPACTS – EN 15804+A1, CML / ISO 21930

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_2e	2,56E+00	1,32E-02	1,77E-01	2,75E+00	6,33E-01	2,53E-03	MND	MND	MND	MND	MND	3,14E+00	MND	MNR	8,13E-04	3,62E-03	4,40E-04	-6,69E-02
Ozone depletion Pot.	kg CFC_{-11}e	3,38E-07	1,60E-10	8,50E-10	3,39E-07	7,77E-09	2,91E-12	MND	MND	MND	MND	MND	9,98E-08	MND	MNR	1,23E-11	2,14E-11	9,73E-12	-5,91E-10
Acidification	kg SO_2e	1,48E-02	2,49E-05	9,31E-04	1,58E-02	1,96E-03	1,78E-06	MND	MND	MND	MND	MND	2,20E-02	MND	MNR	1,90E-06	1,71E-05	2,26E-06	-7,38E-03
Eutrophication	kg PO_4^3e	6,44E-03	5,97E-06	1,29E-04	6,58E-03	3,94E-04	3,23E-06	MND	MND	MND	MND	MND	2,32E-03	MND	MNR	4,79E-07	2,33E-06	7,53E-07	-2,84E-04
POCP (“smog”)	kg C_2H_4e	1,15E-03	2,41E-06	5,46E-05	1,21E-03	1,43E-04	6,11E-07	MND	MND	MND	MND	MND	1,17E-03	MND	MNR	1,81E-07	9,53E-07	2,17E-07	-3,03E-04
ADP-elements	kg Sbe	8,96E-04	4,34E-08	3,23E-07	8,96E-04	1,38E-07	3,83E-09	MND	MND	MND	MND	MND	2,53E-04	MND	MNR	2,54E-09	4,10E-08	7,88E-10	-1,35E-04
ADP-fossil	MJ	3,47E+01	1,86E-01	1,77E+00	3,67E+01	8,43E+00	3,84E-03	MND	MND	MND	MND	MND	6,35E+01	MND	MNR	1,16E-02	4,63E-02	1,03E-02	-7,29E-01

VERIFICATION STATEMENT

VERIFICATION PROCESS FOR THIS EPD

This EPD has been verified in accordance with ISO 14025 by an independent, third-party verifier by reviewing results, documents and compliancy with reference standard, ISO 14025 and ISO 14040/14044, following the process and checklists of the program operator for:

- This Environmental Product Declaration
- The Life-Cycle Assessment used in this EPD
- The digital background data for this EPD

Why does verification transparency matter? Read more online
This EPD has been generated by One Click LCA EPD generator, which has been verified and approved by the EPD Hub.

THIRD-PARTY VERIFICATION STATEMENT

I hereby confirm that, following detailed examination, I have not established any relevant deviations by the studied Environmental Product Declaration (EPD), its LCA and project report, in terms of the data collected and used in the LCA calculations, the way the LCA-based calculations have been carried out, the presentation of environmental data in the EPD, and other additional environmental information, as present with respect to the procedural and methodological requirements in ISO 14025:2010 and reference standard.

I confirm that the company-specific data has been examined as regards plausibility and consistency; the declaration owner is responsible for its factual integrity and legal compliance.

I confirm that I have sufficient knowledge and experience of construction products, this specific product category, the construction industry, relevant standards, and the geographical area of the EPD to carry out this verification.

I confirm my independence in my role as verifier; I have not been involved in the execution of the LCA or in the development of the declaration and have no conflicts of interest regarding this verification.

Imane Uald lamkaddam, as an authorized verifier acting for EPD Hub Limited
22.11.2024