



# ENVIRONMENTAL PRODUCT DECLARATION

IN ACCORDANCE WITH EN 15804+A2 & ISO 14025

OJL 280  
Ouneva Oy



## EPD HUB, HUB-3473

Published on 16.06.2025, last updated on 16.06.2025, valid until 15.06.2030

Life Cycle Assessment study has been performed in accordance with the requirements of EN 15804, EPD Hub PCR version 1.1 (5 Dec 2023) and JRC characterization factors EF 3.1.



Created with One Click LCA



## GENERAL INFORMATION

### MANUFACTURER

Manufacturer	Ouneva Oy
Address	Teollisuustie 21, 82730, Tuupovaara, FI
Contact details	firstname.lastname@ouneva.fi
Website	www.ounevagroup.fi

### 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	Manufactured product
Category of EPD	Third party verified EPD
Parent EPD number	-
Scope of the EPD	Cradle to gate with options, A4-A5, and modules C1-C4, D
EPD author	Annika Tuovinen, Ouneva Group
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	Abderazak Guiz, as an authorized verifier acting for EPD Hub Limited.

This EPD is intended for business-to-business and/or business-to-consumer 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	OJL Distribution Block
Additional labels	OJL 80, OJL 135, OJL 200, OJL 280, OJL 400 C, OJL 400 FBB
Product reference	OJL 280
Place(s) of raw material origin	-
Place of production	Finland
Place(s) of installation and use	
Period for data	2023
Averaging in EPD	Multiple products
Variation in GWP-fossil for A1-A3	+17 / -2 %
GTIN (Global Trade Item Number)	6410019120080

### ENVIRONMENTAL DATA SUMMARY

<b>Declared unit</b>	0,1 kg of product
<b>Declared unit mass</b>	0,1 kg
<b>GWP-fossil, A1-A3 (kgCO<sub>2</sub>e)</b>	7,69E-01
<b>GWP-total, A1-A3 (kgCO<sub>2</sub>e)</b>	7,67E-01
<b>Secondary material, inputs (%)</b>	36
<b>Secondary material, outputs (%)</b>	74
<b>Total energy use, A1-A3 (kWh)</b>	4,08
<b>Net freshwater use, A1-A3 (m<sup>3</sup>)</b>	0,02

# PRODUCT AND MANUFACTURER

## ABOUT THE MANUFACTURER

We are a strong, family-owned Finnish company with over 50 years of experience in manufacturing connectors and meeting the requirements of the electrical industry. We design and manufacture our high-quality products in North Karelia, Finland. We also provide customer-specific connector and power supply solutions. We meet the strict requirements of the industry with our solid design and testing expertise, continuously developing our operations.

In addition to our own connector products, we are a contract manufacturer of sheet metal products for the electronics, machinery and electrical industries, to mention a few. Our deliveries scale from single components to complex, demanding system deliveries.

## PRODUCT DESCRIPTION

OJL distribution blocks are used for branching connections in electrical devices. Our range includes safe and easy-to-install branching connectors suitable for constricted spaces, special circumstances and with a nominal voltage even up to 1000V. The single pole distribution block OJL 280 distributes the current through 11 output cables.

OJL 280 studied in the EPD acts as a representative of the OJL product group. OJL distribution blocks can be used with aluminium and copper wires. Installation can be done with screws or onto a DIN-rail. The OJL 80 & 135 distribution blocks can be connected in series. In other models, the input is through one conductor. Outputs can be done between the connector models with 6, 7 or 11 conductors. Branching connections can also be done with input conductors up to 240mm<sup>2</sup> and busbars up to 10x(1x24). The body of the distribution blocks is tin-plated aluminium. Insulating cover is made from halogen-free UL 94-V0-class polyamide. Standards: EN 60947-7-1:2009, EN 61238-1:2003

Further information can be found at [www.ounevaproductions.fi](http://www.ounevaproductions.fi)

## PRODUCT RAW MATERIAL MAIN COMPOSITION

Raw material category	Amount, mass %	Material origin
Metals	76	EU
Minerals	-	-
Fossil materials	24	EU
Bio-based materials	-	-

## 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	0,00469

## FUNCTIONAL UNIT AND SERVICE LIFE

Declared unit	0,1 kg of product
Mass per declared unit	0,1 kg
Functional unit	-
Reference service life	-

## 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			Assem bly 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	MND	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 connector is made of metals and plastics. The packaging and transport materials consist of cardboard, labels, instructional materials, pallet and packaging film. Distances and transport routes of raw materials were estimated based on supplier locations.

The manufacturing of OJL connectors involve injection moulding, metal working processes, assembly and packaging. Production losses are sent to local waste treatment facilities. Statistical data from the EU region was used to model recycling scenarios for manufacturing waste. A 50 km transport distance was estimated from the factory to local waste treatment operators.

The use of green energy in manufacturing is demonstrated through contractual instruments (GOs, RECs, etc.), and its use is ensured throughout the validity period of this EPD.

## 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.

Module A4 transport is based on sales data of OJL connectors to wholesalers in the calendar year 2023. The module uses sales weighted proportions of the product shipped to multiple locations.

The installation phase A5 does not involve material loss or energy consumption, as the connector can be assumed to be installed manually. The installation phase considers waste treatment of packaging materials.



Based on Eurostat statistics, the recycling rate is 83 % for paper and cardboard, 32 % for wood and 40 % for plastic. The incineration rate is 8 % for paper and cardboard, 30 % for wood and 37 % for plastic.

#### **PRODUCT USE AND MAINTENANCE (B1-B7)**

This EPD does not cover the use phase. Air, soil, and water impacts during the use phase have not been studied.

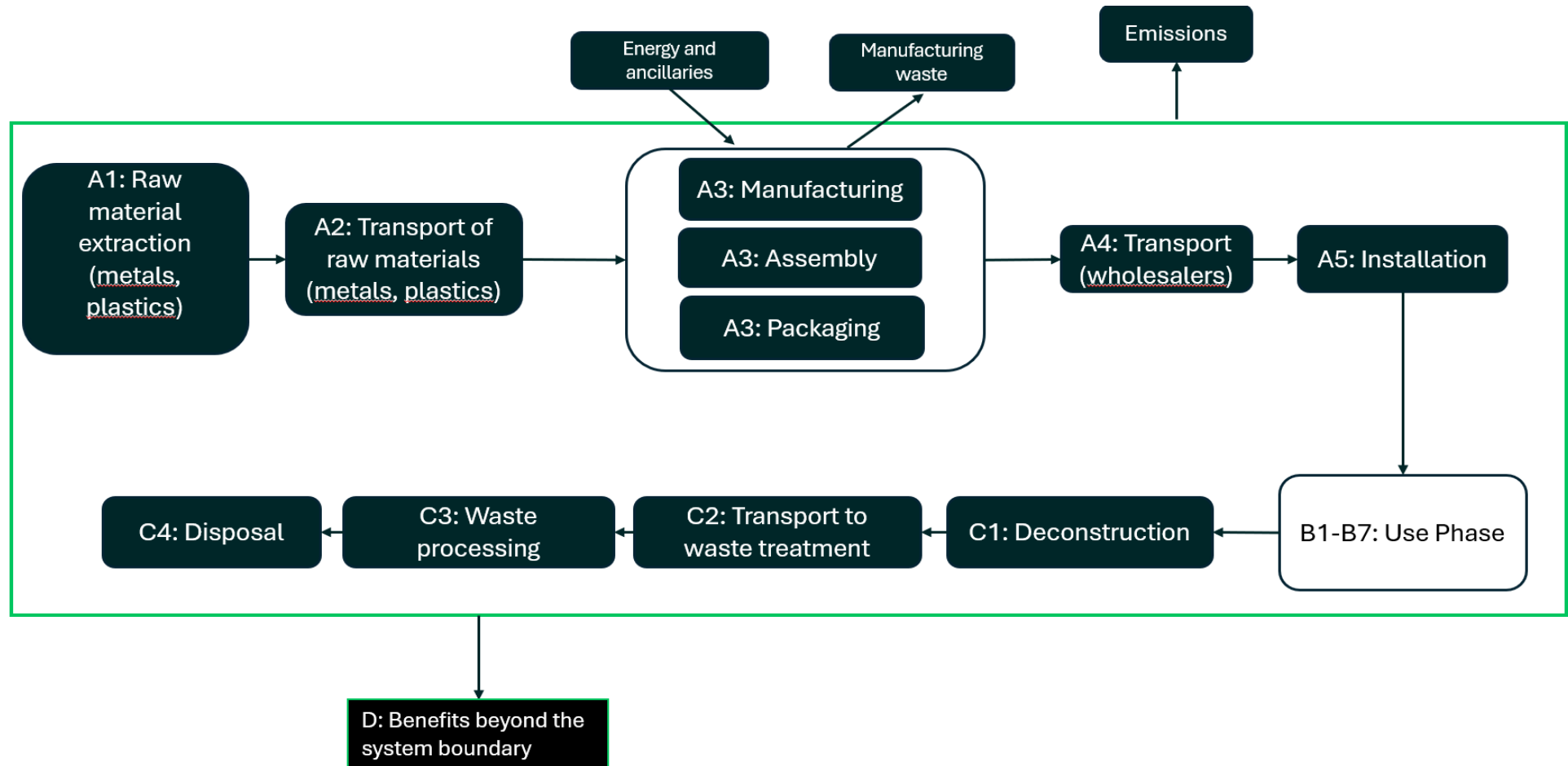
#### **PRODUCT END OF LIFE (C1-C4, D)**

The connector is assumed to be deinstalled manually. Therefore no energy or material consumption has been considered for module C1.

C2-C4 accounts for the processing, disposal and transport of waste. Recycling and incineration rates are considered based on International Aluminium Institute and World Steel Organization, as well as the standard EN 50693. Average distances included in the datapoints were used for transport of waste to treatment facilities. Recycling rates for the metal materials vary between 81-85 % in Europe.

Benefits and loads from recycling and recovery are included in module D. The recycling and recovery of the product and packaging materials lead to avoided virgin raw material production and energy from primary sources. Recycled raw material content has been subtracted from benefits and loads to avoid double counting. The module includes benefits and loads from modules A5 and C3.

# 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, 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.

## 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/AC2021 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	No allocation
Packaging material	No allocation
Ancillary materials	No allocation
Manufacturing energy and waste	Allocated by mass or volume

## AVERAGES AND VARIABILITY

Type of average	Multiple products
Averaging method	Representative product
Variation in GWP-fossil for A1-A3 (%)	+17 / -2 %

OJL 280 was chosen as a representative product for the LCA study. The product acts as a representative product for OJL variants declared in this EPD (Annex 1). Some variation in A1-A3 GWP-fossil exists between the products, and the variance is declared in this EPD. The products serve a similar purpose and performance rating, contain similar materials and are manufactured using the same processes. Modules A4-A5 and the end-of-life scenarios are applicable to all products. The range of products complies with the allowed averaging and aggregation requirements defined in EPD Hub GPI 2.9 & Annex 1.

## 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 v3.10.1 and One Click LCA databases as sources of environmental data. Allocation used in Ecoinvent 3.10.1 environmental data sources follow the methodology 'allocation, Cut-off, EN 15804+A2'.



# ENVIRONMENTAL IMPACT DATA

## CORE ENVIRONMENTAL IMPACT INDICATORS – EN 15804+A2

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	6,38E-01	2,47E-02	1,04E-01	7,67E-01	4,78E-02	3,34E-02	MND	MND	MND	MND	MND	MND	MND	0,00E+00	2,72E-03	3,02E-02	1,54E-02	-6,57E-02
GWP – fossil	kg CO <sub>2</sub> e	6,24E-01	2,47E-02	1,20E-01	7,69E-01	4,77E-02	7,78E-03	MND	MND	MND	MND	MND	MND	MND	0,00E+00	2,72E-03	3,02E-02	1,54E-02	-6,60E-02
GWP – biogenic	kg CO <sub>2</sub> e	9,19E-03	4,64E-06	-1,67E-02	-7,52E-03	9,46E-06	2,56E-02	MND	MND	MND	MND	MND	MND	MND	0,00E+00	6,03E-07	-6,72E-06	-2,02E-06	4,86E-04
GWP – LULUC	kg CO <sub>2</sub> e	4,70E-03	9,66E-06	9,80E-04	5,69E-03	1,69E-05	6,55E-07	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,21E-06	2,20E-06	5,44E-07	-1,56E-04
Ozone depletion pot.	kg CFC-11e	7,48E-08	4,63E-10	2,46E-09	7,77E-08	9,49E-10	8,43E-12	MND	MND	MND	MND	MND	MND	MND	0,00E+00	3,90E-11	2,86E-11	1,26E-11	-7,25E-10
Acidification potential	mol H <sup>+</sup> e	4,99E-03	2,10E-04	5,02E-04	5,70E-03	1,53E-04	3,53E-06	MND	MND	MND	MND	MND	MND	MND	0,00E+00	9,15E-06	2,45E-05	5,50E-06	-3,75E-04
EP-freshwater <sup>2)</sup>	kg Pe	3,28E-04	1,46E-06	6,76E-05	3,98E-04	3,16E-06	1,43E-07	MND	MND	MND	MND	MND	MND	MND	0,00E+00	2,11E-07	1,00E-06	9,63E-08	-2,53E-05
EP-marine	kg Ne	7,46E-04	5,76E-05	6,45E-04	1,45E-03	5,13E-05	3,49E-06	MND	MND	MND	MND	MND	MND	MND	0,00E+00	2,98E-06	7,70E-06	1,54E-05	-5,89E-05
EP-terrestrial	mol Ne	7,22E-03	6,35E-04	1,28E-03	9,13E-03	5,58E-04	1,41E-05	MND	MND	MND	MND	MND	MND	MND	0,00E+00	3,25E-05	7,67E-05	2,45E-05	-6,91E-04
POCP (“smog”) <sup>3)</sup>	kg NMVOCe	2,06E-03	2,07E-04	4,76E-04	2,74E-03	2,37E-04	4,43E-06	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,31E-05	2,12E-05	6,89E-06	-2,33E-04
ADP-minerals & metals <sup>4)</sup>	kg Sbe	1,45E-04	6,91E-08	6,48E-07	1,46E-04	1,56E-07	3,35E-09	MND	MND	MND	MND	MND	MND	MND	0,00E+00	8,29E-09	1,01E-07	1,94E-09	-8,19E-07
ADP-fossil resources	MJ	8,11E+00	3,37E-01	2,96E+00	1,14E+01	6,70E-01	7,30E-03	MND	MND	MND	MND	MND	MND	MND	0,00E+00	3,87E-02	2,54E-02	9,35E-03	-9,12E-01
Water use <sup>5)</sup>	m <sup>3</sup> e depr.	-4,93E-01	1,53E-03	7,06E-02	-4,21E-01	3,29E-03	3,35E-04	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,85E-04	2,19E-03	1,07E-03	-1,03E-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 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.

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

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	1,77E-08	1,69E-09	6,32E-09	2,57E-08	3,75E-09	4,91E-11	MND	MND	MND	MND	MND	MND	MND	0,00E+00	2,42E-10	2,85E-10	5,97E-11	-7,05E-09
Ionizing radiation <sup>6)</sup>	kBq I1235a	8,43E-03	3,79E-04	9,67E-02	1,06E-01	8,53E-04	2,92E-05	MND	MND	MND	MND	MND	MND	MND	0,00E+00	3,25E-05	8,14E-05	1,68E-05	-1,10E-02
Ecotoxicity (freshwater)	CTUe	1,58E+01	4,07E-02	2,45E+00	1,83E+01	8,79E-02	9,43E-03	MND	MND	MND	MND	MND	MND	MND	0,00E+00	5,82E-03	6,77E-02	1,91E+00	-7,82E-02
Human toxicity, cancer	CTUh	8,66E-08	4,41E-12	5,65E-11	8,67E-08	8,14E-12	6,10E-13	MND	MND	MND	MND	MND	MND	MND	0,00E+00	4,55E-13	3,78E-12	1,51E-12	-1,08E-11
Human tox. non- cancer	CTUh	3,91E-08	1,88E-10	3,47E-09	4,27E-08	4,20E-10	2,65E-11	MND	MND	MND	MND	MND	MND	MND	0,00E+00	2,46E-11	1,72E-10	9,98E-11	1,16E-09
SQP <sup>7)</sup>	-	9,64E-01	1,69E-01	2,04E+00	3,17E+00	3,98E-01	7,40E-03	MND	MND	MND	MND	MND	MND	MND	0,00E+00	3,06E-02	3,92E-02	1,22E-02	-2,58E-01

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 <sup>8)</sup>	MJ	1,66E+00	5,23E-03	6,25E-01	2,29E+00	1,16E-02	-1,59E-01	MND	MND	MND	MND	MND	MND	MND	0,00E+00	5,31E-04	3,32E-03	2,88E-04	-1,23E-01
Renew. PER as material	MJ	8,40E-05	0,00E+00	1,58E-01	1,58E-01	0,00E+00	-1,55E-01	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	-4,20E-05	-4,20E-05	6,44E-03
Total use of renew. PER	MJ	1,66E+00	5,23E-03	7,83E-01	2,45E+00	1,16E-02	-3,14E-01	MND	MND	MND	MND	MND	MND	MND	0,00E+00	5,31E-04	3,27E-03	2,46E-04	-1,17E-01
Non-re. PER as energy	MJ	9,41E+00	3,37E-01	2,66E+00	1,24E+01	6,70E-01	-2,27E-01	MND	MND	MND	MND	MND	MND	MND	0,00E+00	3,87E-02	-4,11E-01	-4,34E-01	-9,12E-01
Non-re. PER as material	MJ	7,29E-01	0,00E+00	2,54E-01	9,82E-01	0,00E+00	-2,54E-01	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	-3,64E-01	-3,64E-01	1,01E-01
Total use of non-re. PER	MJ	1,01E+01	3,37E-01	2,92E+00	1,34E+01	6,70E-01	-4,81E-01	MND	MND	MND	MND	MND	MND	MND	0,00E+00	3,87E-02	-7,75E-01	-7,98E-01	-8,11E-01
Secondary materials	kg	1,29E-01	1,56E-04	7,57E-03	1,36E-01	3,07E-04	1,35E-05	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,70E-05	2,81E-05	5,04E-06	1,64E-02
Renew. secondary fuels	MJ	1,66E-04	1,66E-06	4,06E-03	4,23E-03	3,87E-06	1,07E-07	MND	MND	MND	MND	MND	MND	MND	0,00E+00	2,16E-07	1,21E-06	1,22E-07	-2,71E-06
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	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Use of net fresh water	m <sup>3</sup>	1,39E-02	4,13E-05	1,99E-03	1,60E-02	9,01E-05	-1,12E-05	MND	MND	MND	MND	MND	MND	MND	0,00E+00	5,41E-06	4,09E-05	-4,59E-05	-1,19E-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	1,99E-02	4,77E-04	7,05E-03	2,75E-02	9,61E-04	1,25E-04	MND	MND	MND	MND	MND	MND	MND	0,00E+00	6,66E-05	6,47E-04	2,87E-04	-1,60E-02
Non-hazardous waste	kg	1,85E+00	9,44E-03	3,01E+01	3,19E+01	2,03E-02	2,59E-02	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,24E-03	1,76E-02	9,47E-02	1,90E-01
Radioactive waste	kg	4,86E-05	9,41E-08	2,11E-05	6,98E-05	2,12E-07	7,38E-09	MND	MND	MND	MND	MND	MND	MND	0,00E+00	7,95E-09	2,01E-08	4,17E-09	-2,55E-06

## 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	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Materials for recycling	kg	4,35E-02	0,00E+00	2,94E+01	2,95E+01	0,00E+00	7,88E-03	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	6,20E-02	0,00E+00	0,00E+00
Materials for energy rec	kg	5,50E-04	0,00E+00	6,00E-04	1,15E-03	0,00E+00	4,36E-03	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	1,20E-02	0,00E+00	0,00E+00
Exported energy	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	4,62E-02	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+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	2,12E-02	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	6,00E-02	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	2,50E-02	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	8,20E-02	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	6,87E-01	2,45E-02	1,22E-01	8,34E-01	4,74E-02	8,36E-03	MND	MND	MND	MND	MND	MND	MND	0,00E+00	2,70E-03	3,02E-02	1,53E-02	-6,56E-02
Ozone depletion Pot.	kg CFC-11e	5,63E-08	3,68E-10	2,02E-09	5,87E-08	7,55E-10	6,87E-12	MND	MND	MND	MND	MND	MND	MND	0,00E+00	3,11E-11	2,44E-11	1,06E-11	-6,42E-10
Acidification	kg SO <sub>2</sub> e	4,12E-03	1,65E-04	3,99E-04	4,68E-03	1,17E-04	2,62E-06	MND	MND	MND	MND	MND	MND	MND	0,00E+00	7,00E-06	1,91E-05	3,97E-06	-3,13E-04
Eutrophication	kg PO <sub>4</sub> <sup>3</sup> e	7,22E-04	2,49E-05	7,59E-04	1,51E-03	2,92E-05	1,46E-06	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,70E-06	3,71E-06	2,29E-06	-1,96E-05
POCP (“smog”)	kg C <sub>2</sub> H <sub>4</sub> e	2,65E-04	1,03E-05	3,68E-05	3,12E-04	1,10E-05	3,72E-07	MND	MND	MND	MND	MND	MND	MND	0,00E+00	6,25E-07	1,16E-06	3,61E-07	-3,00E-05
ADP-elements	kg Sbe	1,50E-04	6,75E-08	6,42E-07	1,51E-04	1,52E-07	3,25E-09	MND	MND	MND	MND	MND	MND	MND	0,00E+00	8,09E-09	1,00E-07	1,60E-09	-8,13E-07
ADP-fossil	MJ	9,01E+00	3,31E-01	1,56E+00	1,09E+01	6,56E-01	6,81E-03	MND	MND	MND	MND	MND	MND	MND	0,00E+00	3,82E-02	2,42E-02	9,08E-03	-7,41E-01

## ENVIRONMENTAL IMPACTS – 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	6,29E-01	2,47E-02	1,21E-01	7,75E-01	4,78E-02	7,78E-03	MND	MND	MND	MND	MND	MND	MND	0,00E+00	2,72E-03	3,02E-02	1,54E-02	-6,62E-02

9) This indicator includes all greenhouse gases excluding biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product as defined by IPCC AR 5 (IPCC 2013). In addition, the characterisation factors for the flows - CH<sub>4</sub> fossil, CH<sub>4</sub> biogenic and Dinitrogen monoxide - were updated in line with the guidance of IES PCR 1.2.5 Annex 1. This indicator is identical to the GWP-total of EN 15804:2012+A2:2019 except that the characterization factor for biogenic CO<sub>2</sub> is set to zero.

# 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.

Abderazak Guiz, as an authorized verifier acting for EPD Hub Limited.

16.06.2025



## ANNEX 1.

Scaling table, A1-A3 GWP-fossil kg CO<sub>2</sub>e / product

Product name	A1-A3 GWP-fossil kg CO <sub>2</sub> e / 0,1 kg of product	Scaling factor	A1-A3 GWP-fossil kg CO <sub>2</sub> e / product
OJL 80	0,869	2,37	0,37
OJL 80 (PA66)	0,900	2,39	0,38
OJL 135	0,789	1,17	0,67
OJL 135 (PA66)	0,826	1,15	0,72
OJL 200	0,763	1,16	0,66
OJL 280	0,769	0,50	1,53
OJL 400 C, C/S	0,754	0,36	2,12
OJL 400 FBB, FBB/S	0,755	0,36	2,08