ENVIRONMENTAL PRODUCT DECLARATION

IN ACCORDANCE WITH EN 15804+A2 & ISO14025

AKUCOMP 50 mm

In aluminum or plastic housing

REC Indovent AB

EPD HUB, EPD number	**HUB-2548**
Published	11.07.2025
last updated	11.07.2025
valid until	10.07.2030

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	REC Indovent AB
Address	Kärragatan 2, 431 53 Mölndal, Sweden
Contact details	info@rec-indovent.se
Website	www.rec-indovent.se

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 1.1, 5 Dec 2023
Sector	Construction product
Category of EPD	Third party verified EPD
Parent EPD number	HUB-2547
Scope of the EPD	Cradle to gate with options, A4-A5, and modules C1-C4, D
EPD author	Fredrik Nilsson REC Indovent AB
EPD verification	Independent verification of this EPD and data, according to ISO 14025: ☐ Internal verification ☑ External verification
EPD verifier	Sarah Curpen, 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	AKUCOMP 50 mm
Additional labels	Typ A+P 50 mm
Product reference	55002
Place(s) of raw material origin	Sweden
Place of production	Linköping
Place(s) of installation and use	Sweden
Period for data	Oct 2023 - Oct 2024
Averaging in EPD	No grouping
GTIN (Global Trade Item Number)	7340215100000
A1-A3 Specific data (%)	30,5

ENVIRONMENTAL DATA SUMMARY

Declared unit	1 kg AKUCOMP 50 mm
Declared unit mass	1 kg
GWP-fossil, A1-A3 ($kgCO_2e$)	1,93E+00
GWP-total, A1-A3 ($kgCO_2e$)	1,68E+00
Secondary material, inputs (%)	0,81
Secondary material, outputs (%)	44,3
Total energy use, A1-A3 (kWh)	8,16
Net freshwater use, A1-A3 (m^3)	0,01

PRODUCT AND MANUFACTURER

ABOUT THE MANUFACTURER

Manufacturer of supreme quality flexible smoke and ventilation pipes/ducts. As well as manufacturing ventilation units and other ventilation components.

PRODUCT DESCRIPTION

AKUCOMP Original flexible ventilation silencer is used as a flexible, bendable, sound-reducing connection, between ventilation unit and duct. Sound absorption is particularly good in the lower octave bands. That is why, AkuComp is often used together with fixed silencers. which are best at high frequencies. (low+high). The air density is high, class D, pressure between 0-1000 Pa.

Further information can be found at:
www.rec-indovent.se

PRODUCT RAW MATERIAL MAIN COMPOSITION

Raw material category	Amount, mass %	Material origin
Metals	39	Sweden
Minerals	51	Sweden
Fossil materials	10	Sweden
Bio-based materials	0	No bio-based material

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	0,078

FUNCTIONAL UNIT AND SERVICE LIFE

Declared unit	1 kg of AKUCOMP 50 mm
Mass per declared unit	1 kg

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	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.

A Swedish-based approach is used in modelling the electricity mix utilized in the factory.

The production begins with an aluminum band, which enters our machine. In the machine, the band is processed, the band is grooved and folded, now the band is ready to be folded to form an aluminum tube. This aluminum tube is provided with sound -damping mineral wool and then covered with PE/plastic housing. Finally, the solution is provided with galvanized sleeves for ventilation ducts. Now when the product is finished, it is compressed and then it is packed in large cartons for transport.
Packaging: Depending on the size, an average of 40-120 pcs/cardboard box is packed and 1-3 boxes per pallet.

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.

REC keeps transport losses down through cooperation with local suppliers of constituent components. Transport is calculated based on a weighted average of 115 km for sales and transport in 2023. The product is sold ready for installation; no raw material waste is generated by the installation (A5). Post-treatment of product packaging is declared and the average EU scenario per packaging material has been applied with different quotas regarding recycling, incineration and landfill.

PRODUCT USE AND MAINTENANCE (B1-B7)

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

PRODUCT END OF LIFE (C1-C4, D)

The product is dismantled using an electric lift or forklift. The duct sections are disconnected from their mounting points and lowered for transport to recycling or waste handling.

100% of the waste is collected and transported for treatment. The transport distance to the treatment facility is assumed to be 50 km, with truck as the mode of transport. The material is assumed to be sorted and recycled in accordance with Swedish waste management standards.

Calculations have been based on applied scenarios. The impact of deconstruction (C1) is modelled based on literature data for energy use in demolition. In the end of life, the transport distance (C2) to treatment is assumed to be 50 km, and the mode of transport is assumed to be a truck. Waste processing (C3) and disposal (C4) are based on literature data, for the components included. with average reference data for different relationships between material recycling, incineration, and landfill for the main materials

• Approximately 85% of steel is assumed to be recycled based on World Steel Association, 2020 (C3). It is assumed that the remaining 15% of steel is taken to landfill for final disposal (C4).

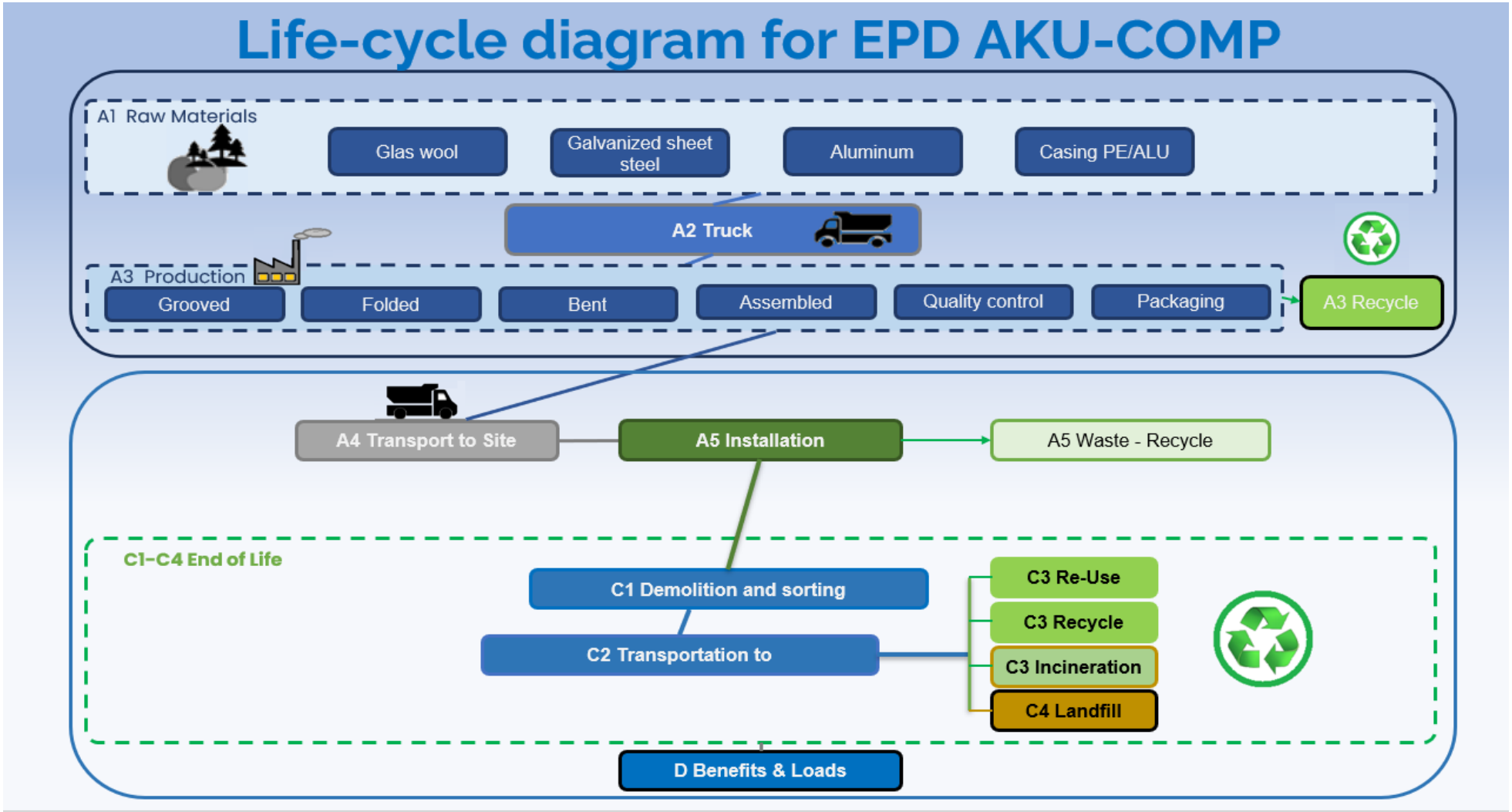
• Approximately 94% of Aluminum is assumed to be recycled based on World Steel Association, 2020 (C3). It is assumed that the remaining 6% of Aluminum is taken to landfill for final disposal (C4).

• Approximately 100 % of Mineral wool is assumed to be landfilled. (C4)."

• Approximately 49% of the plastic is assumed to go to municipal incineration and 24% is recovered through energy recovery based on Plastic Europa (C3). The remaining 27% of the plastic is assumed to be landfilled for final disposal (C4).

Due to the material and energy recovery potential of parts in the end-of-life product and packaging, recycled raw materials lead to avoided virgin material production, 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	Not applicable
Ancillary materials	Not applicable
Manufacturing energy and waste	Allocated by mass or volume

PRODUCT & MANUFACTURING SITES GROUPING

Type of grouping	No grouping
Grouping method	Not applicable
Variation in GWP-fossil for A1-A3, %	0

This EPD is product and factory specific.

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

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[1)]	kg CO_2e	1,87E+00	2,81E-02	-2,18E-01	1,68E+00	1,44E-02	2,97E-01	MND	MND	MND	MND	MND	MND	MND	0,00E+00	5,39E-03	1,51E-01	6,39E-03	-1,41E+00
GWP – fossil	kg CO_2e	1,84E+00	2,81E-02	6,11E-02	1,93E+00	1,44E-02	9,81E-03	MND	MND	MND	MND	MND	MND	MND	0,00E+00	5,38E-03	1,49E-01	6,40E-03	-1,49E+00
GWP – biogenic	kg CO_2e	1,88E-02	6,36E-06	-2,80E-01	-2,61E-01	3,26E-06	2,87E-01	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,22E-06	2,65E-03	-2,80E-06	1,02E-01
GWP – LULUC	kg CO_2e	7,35E-03	1,26E-05	2,41E-04	7,60E-03	6,45E-06	8,29E-06	MND	MND	MND	MND	MND	MND	MND	0,00E+00	2,41E-06	1,13E-05	2,09E-06	-3,00E-02
Ozone depletion pot.	kg $CFC\text{-}_{11}$e	1,13E-07	4,14E-10	1,81E-09	1,15E-07	2,13E-10	7,38E-11	MND	MND	MND	MND	MND	MND	MND	0,00E+00	7,95E-11	1,18E-10	1,07E-10	4,10E-09
Acidification potential	mol H^+e	1,69E-02	9,57E-05	3,34E-04	1,73E-02	4,91E-05	2,95E-05	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,84E-05	9,67E-05	2,61E-05	-7,96E-03
EP-freshwater[2)]	kg Pe	8,94E-05	2,19E-06	1,92E-05	1,11E-04	1,12E-06	1,45E-06	MND	MND	MND	MND	MND	MND	MND	0,00E+00	4,19E-07	5,07E-06	3,19E-07	-9,88E-04
EP-marine	kg Ne	1,78E-03	3,15E-05	9,40E-05	1,90E-03	1,61E-05	3,26E-05	MND	MND	MND	MND	MND	MND	MND	0,00E+00	6,03E-06	3,23E-05	1,57E-05	-1,25E-03
EP-terrestrial	mol Ne	2,67E-02	3,42E-04	1,08E-03	2,81E-02	1,76E-04	1,21E-04	MND	MND	MND	MND	MND	MND	MND	0,00E+00	6,56E-05	2,94E-04	1,09E-04	-1,08E-02
POCP ("smog")[3)]	kg NMVOCe	7,65E-03	1,41E-04	4,59E-04	8,25E-03	7,24E-05	3,86E-05	MND	MND	MND	MND	MND	MND	MND	0,00E+00	2,70E-05	8,27E-05	3,96E-05	-5,20E-03
ADP-minerals & metals[4)]	kg Sbe	4,03E-05	7,83E-08	3,86E-07	4,07E-05	4,02E-08	1,32E-08	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,50E-08	4,26E-07	6,51E-09	-4,56E-06
ADP-fossil resources	MJ	2,65E+01	4,07E-01	1,31E+00	2,82E+01	2,09E-01	7,03E-02	MND	MND	MND	MND	MND	MND	MND	0,00E+00	7,81E-02	1,16E-01	9,03E-02	-2,36E+01
Water use[5)]	m^3e depr.	4,55E-01	2,01E-03	1,54E-01	6,11E-01	1,03E-03	2,19E-03	MND	MND	MND	MND	MND	MND	MND	0,00E+00	3,86E-04	5,66E-03	4,03E-04	-2,83E+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 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, 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
Particulate matter	Incidence	2,06E-07	2,81E-09	6,10E-09	2,15E-07	1,44E-09	5,15E-10	MND	MND	MND	MND	MND	MND	MND	0,00E+00	5,39E-10	1,24E-09	5,93E-10	-1,04E-07
Ionizing radiation[6)]	kBq U235e	1,02E-01	3,55E-04	1,70E-02	1,19E-01	1,82E-04	1,93E-04	MND	MND	MND	MND	MND	MND	MND	0,00E+00	6,80E-05	1,04E-03	8,26E-05	-3,79E-01
Ecotoxicity (freshwater)	CTUe	2,18E+01	5,76E-02	4,45E-01	2,23E+01	2,96E-02	2,69E-02	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,10E-02	1,20E-01	9,25E-01	5,90E+00
Human toxicity, cancer	CTUh	4,54E-09	4,63E-12	2,82E-10	4,83E-09	2,38E-12	2,80E-12	MND	MND	MND	MND	MND	MND	MND	0,00E+00	8,88E-13	1,41E-11	8,26E-13	-2,27E-09
Human tox. non-cancer	CTUh	2,40E-08	2,64E-10	7,35E-10	2,50E-08	1,35E-10	1,50E-10	MND	MND	MND	MND	MND	MND	MND	0,00E+00	5,06E-11	6,20E-10	5,28E-11	-9,52E-09
SQP[7)]	-	2,41E+00	4,10E-01	2,30E+01	2,59E+01	2,11E-01	7,47E-02	MND	MND	MND	MND	MND	MND	MND	0,00E+00	7,87E-02	2,89E-01	1,79E-01	-2,43E+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	3,60E+00	5,58E-03	1,87E+00	5,47E+00	2,87E-03	-2,35E+00	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,07E-03	1,90E-02	1,36E-03	-7,08E+00
Renew. PER as material	MJ	0,00E+00	0,00E+00	2,51E+00	2,51E+00	0,00E+00	-2,51E+00	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	-5,09E-01
Total use of renew. PER	MJ	3,60E+00	5,58E-03	4,38E+00	7,99E+00	2,87E-03	-4,87E+00	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,07E-03	1,90E-02	1,36E-03	-7,59E+00
Non-re. PER as energy	MJ	2,24E+01	4,07E-01	9,98E-01	2,38E+01	2,09E-01	-9,24E-02	MND	MND	MND	MND	MND	MND	MND	0,00E+00	7,81E-02	-2,53E+00	-8,61E-01	-2,36E+01
Non-re. PER as material	MJ	4,07E+00	0,00E+00	3,36E-01	4,40E+00	0,00E+00	-3,36E-01	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	-2,79E+00	-1,28E+00	0,00E+00
Total use of non-re. PER	MJ	2,65E+01	4,07E-01	1,33E+00	2,82E+01	2,09E-01	-4,28E-01	MND	MND	MND	MND	MND	MND	MND	0,00E+00	7,81E-02	-5,32E+00	-2,14E+00	-2,36E+01
Secondary materials	kg	8,10E-03	1,73E-04	9,46E-03	1,77E-02	8,90E-05	5,32E-05	MND	MND	MND	MND	MND	MND	MND	0,00E+00	3,32E-05	2,23E-04	2,55E-05	1,72E-01
Renew. secondary fuels	MJ	1,02E-05	2,20E-06	8,50E-02	8,50E-02	1,13E-06	5,14E-07	MND	MND	MND	MND	MND	MND	MND	0,00E+00	4,22E-07	8,31E-06	4,82E-07	-9,48E-05
Non-ren. secondary fuels	MJ	1,90E-22	0,00E+00	0,00E+00	1,90E-22	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^3	8,21E-03	6,02E-05	1,06E-03	9,34E-03	3,09E-05	-2,07E-04	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,15E-05	8,05E-05	-6,65E-05	-6,36E-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	2,04E-01	6,90E-04	4,33E-03	2,09E-01	3,54E-04	5,36E-04	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,32E-04	2,15E-03	1,86E-04	-3,83E-01
Non-hazardous waste	kg	4,86E+00	1,28E-02	1,78E-01	5,05E+00	6,56E-03	3,63E-01	MND	MND	MND	MND	MND	MND	MND	0,00E+00	2,45E-03	9,03E-02	2,05E-01	-4,77E+00
Radioactive waste	kg	1,73E-04	8,69E-08	4,85E-06	1,78E-04	4,46E-08	4,80E-08	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,67E-08	2,67E-07	1,98E-08	-8,49E-05

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	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	5,26E-02	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	3,99E-01	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	4,95E-02	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	4,41E-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	2,73E-01	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	9,10E-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 – Heat	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,82E-01	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	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_2e	1,81E+00	2,79E-02	6,11E-02	1,89E+00	1,43E-02	1,33E-02	MND	MND	MND	MND	MND	MND	MND	0,00E+00	5,35E-03	1,51E-01	6,24E-03	-1,51E+00
Ozone depletion Pot.	kg $CFC_{-11}e$	1,00E-07	3,31E-10	1,59E-09	1,02E-07	1,70E-10	5,96E-11	MND	MND	MND	MND	MND	MND	MND	0,00E+00	6,34E-11	9,74E-11	8,55E-11	8,12E-09
Acidification	kg SO_2e	1,40E-02	7,31E-05	2,55E-04	1,44E-02	3,75E-05	2,19E-05	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,40E-05	7,55E-05	1,93E-05	-6,90E-03
Eutrophication	kg PO_4^3e	2,26E-03	1,78E-05	2,32E-03	4,59E-03	9,14E-06	8,00E-06	MND	MND	MND	MND	MND	MND	MND	0,00E+00	3,41E-06	1,71E-05	7,12E-06	-2,38E-04
POCP (“smog”)	kg C_2H_4e	9,07E-04	6,52E-06	4,17E-05	9,55E-04	3,34E-06	2,50E-06	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,25E-06	5,47E-06	2,23E-06	-9,68E-04
ADP-elements	kg Sbe	4,02E-05	7,64E-08	3,79E-07	4,07E-05	3,92E-08	1,26E-08	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,46E-08	4,24E-07	6,34E-09	-4,08E-06
ADP-fossil	MJ	2,58E+01	4,02E-01	1,21E+00	2,74E+01	2,06E-01	6,71E-02	MND	MND	MND	MND	MND	MND	MND	0,00E+00	7,70E-02	9,77E-02	8,90E-02	-1,64E+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[9)]	kg CO_2e	1,85E+00	2,81E-02	6,14E-02	1,94E+00	1,44E-02	9,82E-03	MND	MND	MND	MND	MND	MND	MND	0,00E+00	5,38E-03	1,49E-01	6,40E-03	-1,52E+00

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 - CH4 fossil, CH4 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 CO2 is set to zero.

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 15802+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

THIRD-PARTY VERIFICATION SIGNATURE

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.

Sarah Curpen, as an authorized verifier acting for EPD Hub Limited.
11.07.2025

GTIN	Artikelkod	REC Product name	1 kg	GWP-Fossil, A1-A3	1,93E+00
7340215100687	55010100	Aku Comp 50 P Ø100 1.2m	1,1	2,1	kg CO_2e/item
7340215100694	550101000060	Aku Comp 50 P Ø100 0,6m	1,0	1,9	kg CO_2e/item
7340215100700	55010125	Aku Comp 50 P Ø125 1.2m	1,3	2,5	kg CO_2e/item
7340215100717	550101250060	Aku Comp 50 P Ø125 0,6m	1,1	2,1	kg CO_2e/item
7340215100724	55010160	Aku Comp 50 P Ø160 1.2m	1,5	2,9	kg CO_2e/item
7340215100731	55010200	Aku Comp 50 P Ø200 1.2m	1,8	3,4	kg CO_2e/item
7340215100748	55010250	Aku Comp 50 P Ø250 1.2m	2,4	4,7	kg CO_2e/item
7340215100502	55007100	Aku Comp 50 Alu N/M Ø100 1.2m	1,1	2,2	kg CO_2e/item
7340215100519	550071000060	Aku Comp 50 Alu N/M Ø100 0,6m	1,0	1,9	kg CO_2e/item
7340215100526	55007125	Aku Comp 50 Alu N/M Ø125 1.2m	1,3	2,6	kg CO_2e/item
7340215100533	550071250060	Aku Comp 50 Alu N/M Ø125 0,6m	1,2	2,2	kg CO_2e/item
7340215100540	55007160	Aku Comp 50 Alu N/M Ø160 1.2m	1,6	3,0	kg CO_2e/item
7340215100557	550071600060	Aku Comp 50 Alu N/M Ø160 0,6m	1,3	2,4	kg CO_2e/item
7340215100564	55007200	Aku Comp 50 Alu N/M Ø200 1.2m	1,8	3,5	kg CO_2e/item
7340215100571	55007250	Aku Comp 50 Alu N/M Ø250 1.2m	2,5	4,7	kg CO_2e/item
7340215103831	55007999	Aku Comp 50 Alu Ø 1.2m	1,0	1,9	kg CO_2e/item