



Environmental Product Declaration

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

Aluminium Profiles



Program:

Environmental Footprint Institute

Calle Circle 49A
CP 28022
Madrid
Spain

info@huellaambiental.org

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An EPD should provide current information and may be updated if conditions change. The stated validity is therefore subject to the continued verification and registration at www.environmentalfootprintinstitute.org



ENVIRONMENTAL FOOTPRINT INSTITUTE

Aluminium Products Company (ALUPCO)

1st Industrial Area, Dammam 32234,
Kingdom of Saudi Arabia

www.alupco.com

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1.0 PROGRAM INFORMATION

Program	The Environmental Footprint Institute
Product Group Classification	UN CPC 42120
Product Category Rules (PCR)	P-3100 (EN 15804:2012+A2:2019/AC:2021)
Registration Number	230903EPD CR:P-3100
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Validity Date	28.09.2028 An EPD should provide current information and may be updated if conditions change. The stated validity is therefore subject to the continued registration and publication at www.environmentalfootprintinstitute.org
Geographical Scope	Manufactured in KSA and distributed Globally

2.0 INTRODUCTION

This report contains the environmental performance of the manufacturing process of Aluminium Profiles made from primary Aluminium developed by Aluminum Products Company (ALUPCO). This Environmental Product Declaration (EPD) has been developed using the Life Cycle Assessment (LCA) methodology. The environmental impact values calculated are expressed to One-Kg of Aluminium Profile.

The assessed life cycle includes all phases in the manufacturing process of Aluminium Profile in a “cradle to gate with options” scope. This LCA covers transportation of Raw materials, production, distribution of final product to the customer and end of life stages.

This EPD has been conducted according to the program operator regulations and it has been verified in accordance with The Environmental Footprint Institute. The EPD regulation is a system for the international use of Type III Environmental Declarations, according to ISO 14025:2006. Not only the system, but also its applications, is described in the Programmer’s Product Category Rules (PCR). This report has been made following the specifications given in the European standard EN 15804:2012+A2:2019/AC:2021.

3.0 COMPANY INFORMATION

Aluminium Products Company (ALUPCO) is the Market leader and the largest producer of extruded and surface treated Aluminum profiles in the entire Middle East. ALUPCO is also renowned for its variety of surface treatment such as electrostatic powder coating, anodizing, polishing and wood finish coating.

ALUPCO Head Office and Dammam plant is located in 1st Industrial City (Eastern Province of Saudi Arabia), while ALUPCO other plant is located in Jeddah Industrial City - Phase II (Western Province) covering a total area of 135,000 square meters. ALUPCO also operates sale center offices in Riyadh, Dubai, and Cairo to cater to the needs of all its customers based in Saudi Arabia, the Middle East, Africa, Europe, and the rest of the world.

ALUPCO maintains very high quality standards that are confirmed and complying with European (EN), German (DIN), British (BS), American (ASTM) and the Saudi (SASO) standards in every step of its operations.

Towards energy sustainability especially in the construction sector and to provide advanced solutions, ALUPCO has formed strategic partnerships with International companies like ALUK (Italian Architectural Systems Company) and ALUBOND (American Brand of Aluminium Composite Panels). ALUPCO has also developed its own Architectural Thermal Break Systems for doors, windows and curtain walls to minimize heat transfer in the buildings from outside to inside.

Sustainable Practices

ALUPCO is committed to green and sustainable practices by using backward and forward integration into its manufacturing processes:

- Sourcing of raw materials from the closest source to reduce the impact on transportation;
- Using recycled materials and minimizing waste which further helps reduce environmental impact and carbon footprint;

Certifications

ALUPCO has achieved the below certifications:

- ISO 9001:2015 – Quality Management System;
- Internationally-recognized product quality certifications QUALICOAT and QUALANOD as well as QUALIDECO.

4.0 PRODUCT INFORMATION

4.1 Analyzed Product

The assessed system in this Environmental Product Declaration (EPD) comprises the full life cycle of **Aluminium Profiles by extrusion** with different surface treatment manufactured by ALUPCO in its plants in Dammam and Jeddah, Saudi Arabia. This assessment has been done using the production data of year 2022 in ALUPCOS` s plant in Dammam.

Types of coating systems. ALUPCO manufactures and sells:

1. Aluminium profiles "as is".
2. Electrostatic powder coated.
3. Anodized and polishing with different color finishes.

All profiles are firstly subjected to chemical surface pretreatment and coated with electrostatic powder or anodized and polished. Wood transfer can also be applied over profiles for a wood finish coating..

4.2 Aluminum Properties

Aluminum is a special material with properties such as being lightweight, extremely durable, resistant to corrosion, and contributes minor carbon footprint. Aluminum is now the second most widely used metal in the world. This is because aluminum has a unique combination of attractive properties;

- Lightweight
- Extremely Durable
- Excellent corrosion resistance
- Electrical & thermal conductivity
- Superior Workability
- Easy to manage

4.3 Applications

There is a wide variety of Alupco profiles, many are used in the construction, and others are used in industries as raw material for the fabrication of many products.

- Doors, Windows, Curtain Walls, & Partitions;
- Cable Trays, Scaffolding & Louvers
- Air conditioning chillers, Ladders, & Refrigeration trucks & cold stores.

5.0 LCA INFORMATION

5.1 Declared Unit

The Declared Unit of the Life Cycle Assessments is One-Kg of Aluminium Profile. All direct and indirect environmental impacts, as well as the use of resources, are reported referred to this unit. This EPD presents the environmental impacts associated to the LCA of the analyzed products

5.2 Time representativeness

Manufacturing facility specific data from ALUPCO are based on 1 year average for process data (Reference year January 2022 to May 2023). The following rules for time scope of data were applied - < 10 years for background data and < 2 years for manufacturer's data.

5.3 LCA Software and Database

Version 3.14.0.15 of software Air.e LCA™ with Ecoinvent™ 3.9 database has been used for LCA modeling and impacts calculations.

5.4 System Boundaries

This EPD covers all product stages from “cradle to gate with options”, i.e this LCA covers Production stage A1-A3, Transportation A4, End of life stages C1-C4 and Resource recovery stage D according to EN 15804 + A2/AC:2021.

The procedures that are not controlled by the company, but are included in this environmental study, are:

- The extraction and production of fuels.
- The production of electricity.
- The production of the machinery, buildings, and vehicles.

All related direct and indirect environmental impacts related to these elements have been calculated and were included in the LCAs in this EPD.

Upstream Processes (A1: Raw Material Supply): Production of the product starts with mainly raw material production and transportation from different parts of the world and some locally sourced. ‘Raw material supply’ includes raw material extraction before production.

Core Processes (A2: Transportation, A3: Manufacturing and A4: Transport): Transport is relevant for delivery of raw materials to the plant and the transport of materials within the plant. Electricity is consumed in the production process. Aluminium Profiles are distributed to customer’s places. Profiles production starts with receipt of raw materials, sawing, preheating of billets, extrusion, quality inspection, ageing, pre-treatment, anodizing, painting & packaging and transport to customers. To create a scenario of the A4 phase, all the products sold from January 2022– May 2023 has been analyzed as representative of the international transport. The transport means 3.5-7.5t & >32t trucks, Euro 6.

Scenario Details	Description
Vehicle used for transport	3.5-7.5t & >32t trucks, Euro 6.
Vehicle capacity	3.5 -7.5 tons and 25 tons
Fuel type and consumption	Diesel, 0.38 liters per km
Capacity utilization (including empty drums)	50% as assumed in Ecoinvent
Bulk transportation	Mass of the transported product.

Module C1: The environmental impacts of this module are taken to be zero since information on the deconstruction and demolition of aluminum profiles from the installation site is scarce.

Module C2: This module assumes that 90% of the produced quantity is recycled whereas the remaining 10% is to be landfilled. Therefore, an average distance of 100 kms carrying the demolished items on a Euro 6 truck (7.5-16 ton) from the demolition site to nearby scrap yards and landfill sites has been considered. This is a conservative assumption.

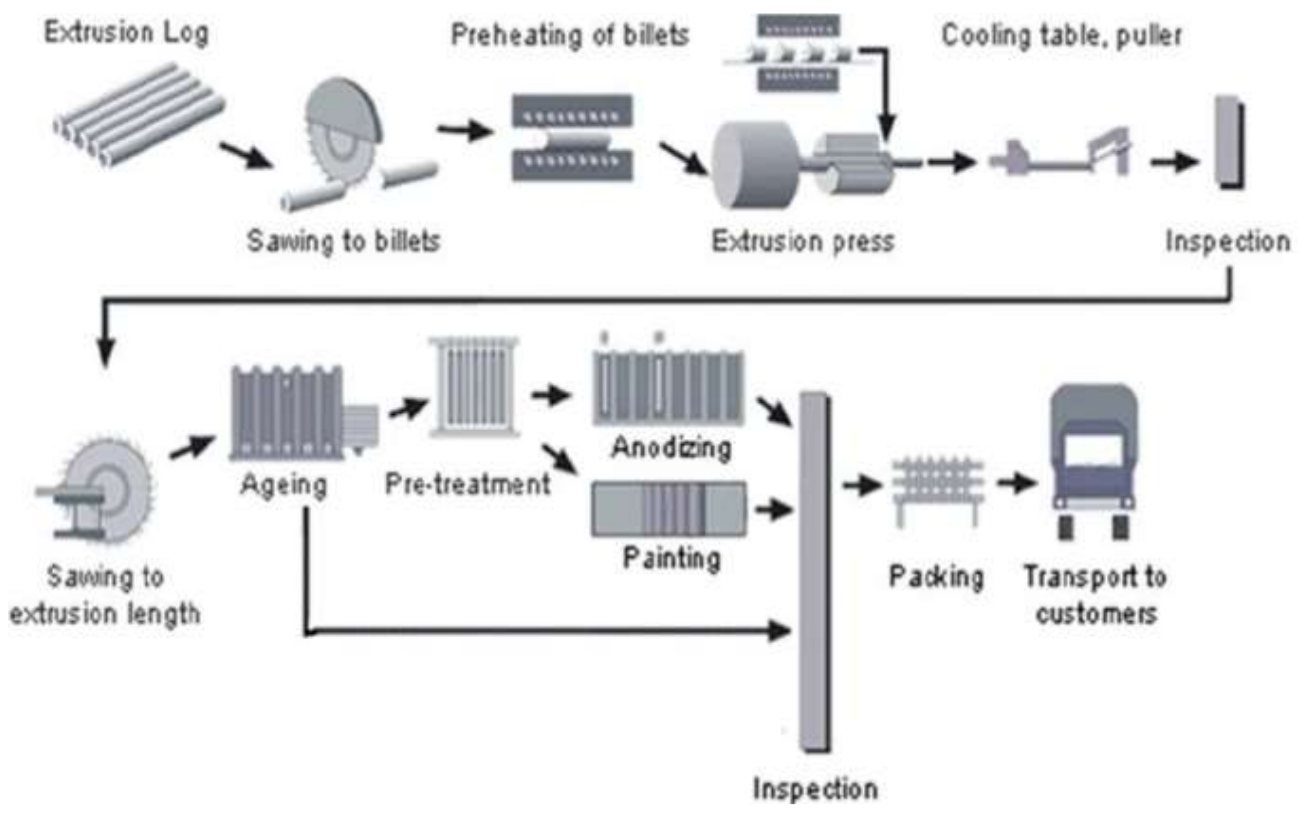
Module C3: This module considers the remelting process of 90% of the Aluminium Profiles to produce secondary aluminum ingots

Module C4 Disposal - This module accounts for the 10% of the produced quantity to be landfilled.

Scenario Details	Description
Collection Process by type	1 ton of collected product mixed with construction waste
Recovery	Nil. 100% of the paint that is applied to the substrate is transported to a landfill.

Module D Reuse, Recycling & Recovery Potential - This module accounts for the benefits from the recycling potential of all the used packaging materials and Aluminium profile.

5.5 Manufacturing Flow and System Boundaries Diagram




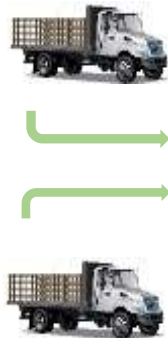

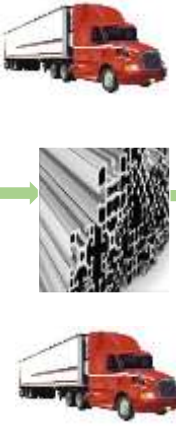


The scope of this EPD is "cradle to gate with options".

Possible scopes of the LCA defined in the European standard EN 15804:2012+A2:2019/AC:2021 are:

	Production Stage					Construction Process Stage	Use Stage						End of Life Stage					Resource Recovery Stage
	Raw Materials	Transport	Manufacturing	Transport	Construction Installation		Use	Maintenance	Repair	Replacement	Refurbishment	Operational Energy Use	Operational Water Use	De-construction Demolition	Transport	Waste Processing	Disposal	
Module	A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D	
Modules declared	X	X	X	X	ND	ND	ND	ND	ND	ND	ND	ND	X	X	X	X	X	
Geography	UAE/ GLO	UAE/ GLO	UAE	-	-	-	-	-	-	-	-	-	GLO	GL O	GL O	GL O	GLO	
Specific data	GWP > 90%				-	-	-	-	-	-	-	-	-	-	-	-	-	
Variation - products	0				-	-	-	-	-	-	-	-	-	-	-	-	-	
Variation - sites	0				-	-	-	-	-	-	-	-	-	-	-	-	-	

X = Included, ND=Module not declared, NR= Module not relevant

Scope of this Life Cycle Assessment 'Cradle to Gate with Options'

A1 Raw Materials Production	A2 Transport raw materials	A3 Manufacture	A4 Distribution	C1-C4 End of use Stage	D Recovering & Recycling
					
Raw Materials and Chemicals	Transport from supplier by land or sea	Profiles Manufacturing	Transport to customers by trucks & Ships	Demolition, transport, disposal.	Reuse, recovery and recycling potential

5.6 Content Declaration

Product Components	Coated Aluminium Profiles	Anodized Aluminium Profiles	Post-consumer material, weight-%	Biogenic material, weight-% and kg C/kg
Aluminium	94%	97%	0	0
Silicon	0.5-1%	0.5-1%	0	0
Magnesium	0.5-1%	0.5-1%	0	0
Powder Coating	<1%	<1%	0	0
Anodizing Agents	-	<1%	0	0
Polyester	4%	-	0	0

Packaging Materials			
Packaging Materials	Weight Kg	Weight % (Versus the Product)	Weight biogenic carbon, kg C/kg
Wooden Pallet	17	0.17	0*
Metal Straps	2325	23.25	0
Plastic Sheets	200	2	0

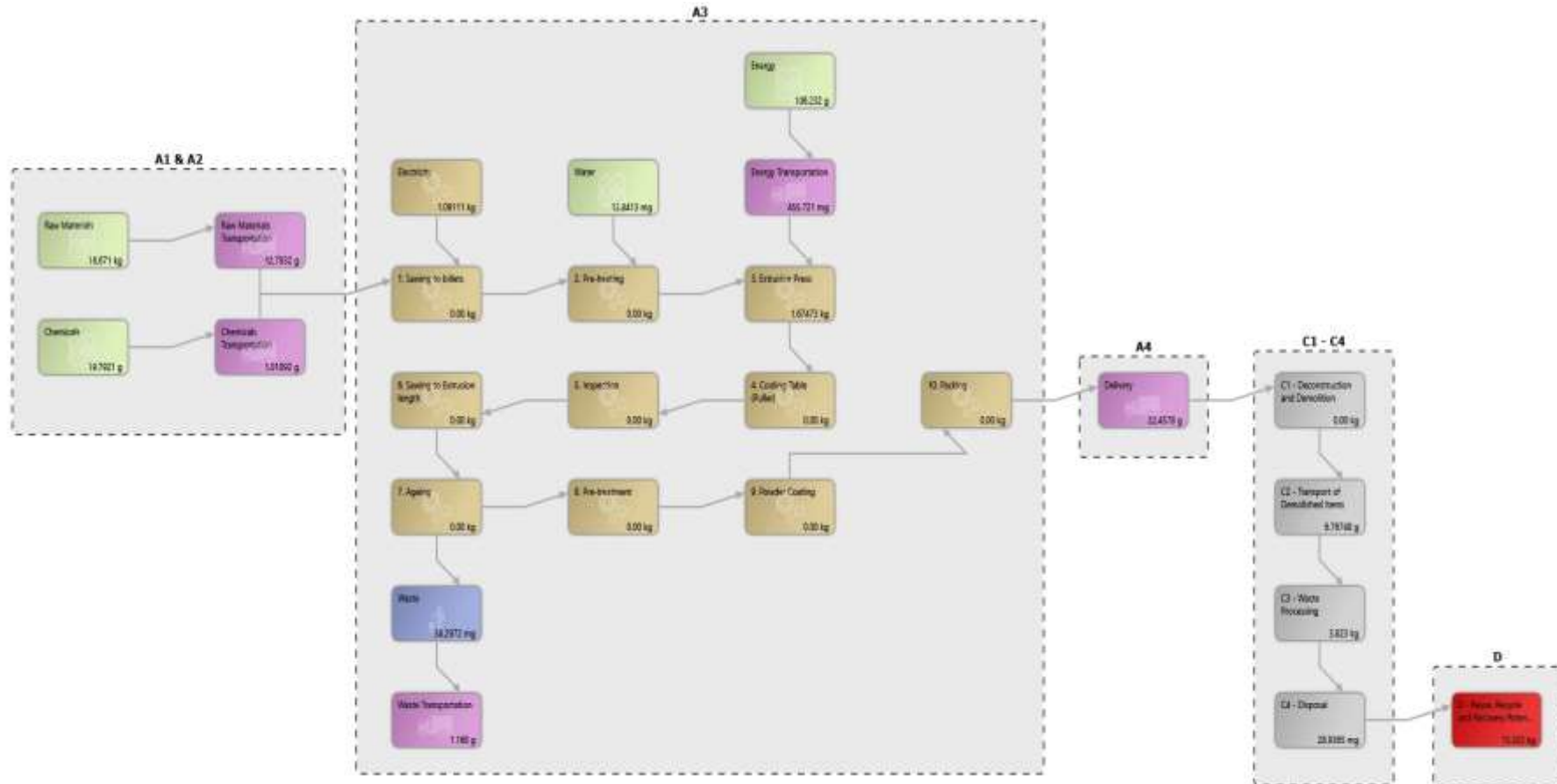
*Biogenic carbon content is not presents since the packaging weights less than a 5% over the product's weight.

5.7 Substances listed in the "Candidate List of SVHC"

During the life cycle of the product no hazardous substance listed in the "Candidate List of Substances of Very High Concern (SVHC) for authorization" has been used in a percentage higher than 0.1% of the weight of the product.

5.8 Life Cycle Assessment Modeling

The following diagram designed using Air.e LCA software shows an example of the materials, fuels consumption, energy consumption, transports and other elements and procedures included in the assessments.



5.9 More information

Cut-off rules: more than 99% of the materials and energy consumption have been included. The Polluter Pays Principle and the Modularity Principle have been followed.

Allocations: The allocation of common inputs and outputs is based on the general allocation rule what represents the proportion of production of every specific product in overall production expressed in kg. Generic process data for production of input materials were used.

Electricity: A specific dataset with the Life Cycle Inventory (LCI) corresponding to the electricity mix in Saudi Arabia, has been used for this LCA.

Calculation Rules: Datasets from Ecoinvent 3.9.0 with emission factors for raw materials and generic chemicals have been characterized to adjust them to the characteristics of manufacturing of suppliers or counties where suppliers are located. Specific datasets with the emissions factors corresponding to the fuel combustion of production plant and machinery have been developed for these LCAs. Indirect emissions due to diesel production and transportation are also included in the environmental impact. Minor components are not directly related to the product, with less than 1% impact, such as office supplies, has been excluded from the assessment.

All transports of components have been included in the LCA considering real distances travelled by materials used for production. It is estimated in a global scale according to Ecoinvent™ criteria. As exact port locations are not known in detail, transport distances have been calculated from a one of the ports in the country of origin to the factory. Operation in port has also been excluded. Road distances calculated using Google Maps. Maritime distances calculated using Marine Traffic Voyage Planner.

By Products Assignment There are no By Products in this Environmental Product Declaration. Hence, no allocation had to be applied.

6.0 ENVIRONMENTAL PERFORMANCE

6.1 Potential Environment Impacts

In the following tables, the environmental performance of the declared units “One-Kg of Aluminium Profile” is presented for the ALUPCO. During the assessment it was not evident to distinguish the differences in the consumption of electricity, water, raw material and chemicals during the manufacturing. Hence, the calculation is based on total production vs total consumption against production of the product. Environmental impacts are calculated using the EF-3.1, (ILCD).



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

Core Environmental Impact Indicators

Impact Category	Unit	A1-A3	A4	A5	B1-B7	C1	C2	C3	C4	Total	D
Climate change (GWP) – fossil	kg CO2e	1.96E+01	2.25E-02	ND	ND	0.00E+00	6.77E-03	3.71E+00	2.85E-05	2.33E+01	-1.53E+01
Climate change (GWP) – biogenic	kg CO2e	1.51E-02	2.38E-07	ND	ND	0.00E+00	0.00E+00	5.13E-02	2.18E-07	6.64E-02	-1.38E-02
Climate change (GWP) – LULUC	kg CO2e	6.67E-03	9.71E-07	ND	ND	0.00E+00	0.00E+00	6.62E-02	1.88E-07	7.29E-02	-4.71E-03
Climate change (GWP) – total	kg CO2e	1.96E+01	2.25E-02	ND	ND	0.00E+00	6.77E-03	3.82E+00	2.89E-05	2.34E+01	-1.53E+01
Ozone depletion	kg CFC11e	1.59E-06	2.80E-10	ND	ND	0.00E+00	0.00E+00	1.71E-06	3.31E-06	6.61E-06	-1.09E-06
Acidification	mol H+e	9.93E-02	5.00E-05	ND	ND	0.00E+00	2.35E-06	3.48E-02	2.06E-07	1.34E-01	-7.14E-02
Eutrophication, aquatic freshwater	kg PO4e	8.13E-03	1.36E-07	ND	ND	0.00E+00	0.00E+00	2.18E-03	4.45E-08	1.03E-02	-6.83E-03
Eutrophication, aquatic freshwater	Kg P eq	2.65E-03	4.43E-08	ND	ND	0.00E+00	0.00E+00	7.11E-04	1.45E-08	3.36E-03	-2.23E-03
Eutrophication, aquatic marine	kg Ne	1.97E-02	1.50E-05	ND	ND	0.00E+00	1.17E-06	7.33E-03	3.81E-08	2.71E-02	-1.16E-02
Eutrophication, terrestrial	mol Ne	2.13E-01	1.70E-04	ND	ND	0.00E+00	1.00E-05	7.22E-02	3.40E-07	2.86E-01	-1.25E-01
Photochemical ozone formation	kg NMVOCe	6.55E-02	4.35E-05	ND	ND	0.00E+00	3.46E-06	1.62E-02	9.28E-08	8.17E-02	-4.09E-02
Abiotic depletion, minerals & metals	kg Sbe	6.84E-05	1.94E-09	ND	ND	0.00E+00	0.00E+00	7.05E-05	3.56E-09	1.39E-04	-3.65E-05
Abiotic depletion of fossil resources	MJ	2.93E+02	1.92E-02	ND	ND	0.00E+00	0.00E+00	9.77E+01	3.59E-01	3.91E+02	-2.35E+02
Water use	m3e depr.	2.25E+00	4.32E-05	ND	ND	0.00E+00	0.00E+00	4.21E+00	3.21E-05	6.46E+00	-1.83E+00

EN 15804+ A2 disclaimers for Abiotic depletion and Water use indicators and all 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 experienced with the indicator. "Reading example: 1.57E-03 = 1.57*10-3 = 0.00157"

Additional Environmental Impact Indicators

Impact Category	Unit	A1-A3	A4	A5	B1-B7	C1	C2	C3	C4	Total	D
Particulate matter	Incidence	9.60E-07	8.12E-11	ND	ND	0.00E+00	1.22E-11	3.45E-07	1.57E-12	1.30E-06	-8.16E-07
Ionizing radiation, human health	kBq U235e	3.69E-01	8.20E-05	ND	ND	0.00E+00	0.00E+00	2.02E-03	3.49E-06	3.71E-01	-2.47E-01
Eco-toxicity (freshwater)	CTUe	4.12E+01	5.35E-03	ND	ND	0.00E+00	2.00E-05	3.64E+01	7.90E-04	7.75E+01	-2.65E+01
Human toxicity, cancer effects	CTUh	2.88E-08	1.51E-12	ND	ND	0.00E+00	2.27E-13	5.19E-09	4.68E-14	3.40E-08	-2.65E-08
Human toxicity, non-cancer effects	CTUh	2.78E-07	1.89E-11	ND	ND	0.00E+00	4.45E-12	6.38E-08	1.70E-12	3.42E-07	-2.47E-07
Land use related impacts/soil quality	Dimensionless	6.99E+02	2.39E-03	ND	ND	0.00E+00	0.00E+00	1.03E+02	2.80E-04	8.02E+02	-6.93E+02

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.

Environmental impacts - GWP-GHG

Impact Category	Unit	A1-A3	A4	A5	B1-B7	C1	C2	C3	C4	Total	D
GWP-GHG	kg CO2e	1.96E+01	2.25E-02	ND	ND	0.00E+00	6.77E-03	3.77E+00	2.87E-05	2.34E+01	-1.53E-01

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) This indicator is almost equal to the GWP indicator originally defined in EN 15804:2012+A1:2013.

Use of Natural Resources

Impact Category	Unit	A1-A3	A4	A5	B1-B7	C1	C2	C3	C4	Total	D
Renewable PER used as energy	MJ	9.45E+01	1.21E-04	ND	ND	0.00E+00	0.00E+00	1.83E+01	4.77E-05	1.13E+02	-9.38E+01
Renewable PER used as materials	MJ	1.61E-02	5.34E-07	ND	ND	0.00E+00	0.00E+00	8.72E-03	9.20E-08	2.49E-02	-1.37E-02
Total use of renewable PER	MJ	9.45E+01	1.22E-04	ND	ND	0.00E+00	0.00E+00	1.83E+01	4.78E-05	1.13E+02	-9.38E+01



Non-renew. PER used as energy	MJ	2.94E+02	1.92E-02	ND	ND	0.00E+00	0.00E+00	9.77E+01	3.59E-04	3.91E+02	-2.35E+02
Non-renew. PER used as materials	MJ	3.19E-05	3.19E-10	ND	ND	0.00E+00	0.00E+00	7.29E-06	1.05E-10	3.92E-05	-2.84E-05
Total use of non-renewable PER	MJ	2.94E+02	1.92E-02	ND	ND	0.00E+00	0.00E+00	9.77E+01	3.59E-04	3.91E+02	-2.35E+02
Use of secondary materials	Kg	0.00E+00	0.00E+00	ND	ND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of renewable secondary fuels	MJ	0.00E+00	0.00E+00	ND	ND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of non-renew. secondary fuels	MJ	0.00E+00	0.00E+00	ND	ND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of net fresh water	m3	1.03E+05	0.00E+00	ND	ND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.03E+05	0.00E+00

End of Life - Waste

Impact Category	Unit	A1-A3	A4	A5	B1-B7	C1	C2	C3	C4	Total	D
Hazardous waste	Kg	2.45E+03	0.00E+00	ND	ND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.45E+03	0.00E+00
Non-hazardous waste	Kg	3.71E+06	0.00E+00	ND	ND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.71E+06	0.00E+00
Radioactive waste	Kg	0.00E+00	0.00E+00	ND	ND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

End of Life - Outflows

Impact Category	Unit	A1-A3	A4	A5	B1-B7	C1	C2	C3	C4	Total	D
Components for reuse	Kg	0.00E+00	0.00E+00	ND	ND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-4.72E+07
Materials for recycling	Kg	0.00E+00	0.00E+00	ND	ND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Materials for energy recovery	Kg	0.00E+00	0.00E+00	ND	ND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy - electricity	MJ	1.19E+08	0.00E+00	ND	ND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.19E+08	0.00E+00
Exported energy - thermal	MJ	0.00E+00	0.00E+00	ND	ND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00



Biogenic Carbon Content

Details	Unit	A1-A3
Biogenic carbon content in product	Kg C	0
Biogenic carbon content in accompanying packaging	Kg C	0

Note: 1 kg biogenic carbon is equivalent to 44/12 kg CO₂. "Reading example: 1.57E-03 = 1.57*10⁻³ = 0.00157"

Disclaimer: "According to the EN 15804:2012+A2:2019 standard, the LCIA results are relative expressions translating impacts into environmental themes such as climate change, ozone depletion, etc. (midpoint impact categories). Thus, the LCIA results do not predict impacts on category endpoints such as impact on the extinction of species or human health. In addition, the results do not provide information about the exceeding of thresholds, safety margins or risks".

6.2 Interpretation of LCA Study Results

In general terms, as it is shown in the table of core environmental impact indicators, A1-A3 modules have the higher impact, representing above 80% of the whole impact. A4 module has a less impact. C2 and C4 module has little impact too, representing at most 0.16% and 0.01% respectively of the whole impact.

7.0 MANDATORY STATEMENTS




Explanatory material can be obtained from EPD owner and/or LCA author. The verifier and The Program Operator do not make any claim or present any responsibility about the legality of the product. The EPD owner has the sole ownership, liability, and responsibility for the EPD. The LCA Author shall not be liable with respect to manufacturer information, life cycle assessment data and evidences.

EPDs within the same product category but registered in different EPD programmes may not be comparable. For two EPDs to be comparable, they must be based on the same PCR (including the same 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 equivalent system boundaries and descriptions of data; apply equivalent data quality requirements, methods of data collection, and allocation methods; have equivalent content declarations; and be valid at the time of comparison.

8.0 VERIFICATION

Diffusion Institution	The Environmental Footprint Institute Calle CIRCE 49A Madrid 28022, Spain www.environmentalfootprintinstitute.org
Registration Number	230903EPD CR:P-3100
Issue Date	28.09.2023
Valid until	28.09.2028
Product Category Rules	P-3100 (EN 15804:2012+A2:2019/AC:2021)
Product Group Classification	UN CPC 42120
Reference year for Data	January 2022- May 2023
Geographical Scope	Manufactured in Kingdom of Saudi Arabia (KSA) and Distributed Globally
Product category rules (PCR): P-3100 (EN 15804:2012+A2:2019/AC:2021)	
PCR review was conducted by: The Environmental Footprint Institute.	
Independent verification of the declaration and data, according to ISO 14025:2006 and ISO 14040: <input type="checkbox"/> EPD Process Certification (internal) <input checked="" type="checkbox"/> EPD Verification (external)	
Third party verifier: Mr. Iván Jiménez Accredited by: The Environmental Footprint Institute.	

9.0 CONTACT INFORMATION

EPD Owner	<p>Aluminium Products Company (ALUPCO) 38 St, Industrial Area No 1, Dammam 32234, Saudi Arabia Tel : +966 13 866 6444 qasim@alupco.com www.alupco.com</p>  
LCA Author	<p>S.B.Rajan -BS (Engg.& Tech), M.Sc (GE & Climate Finance), Green Finance Specialist Alan Beski Christopher -Sustainability Consultant GCAS Quality Certifications P.O.Box 65561, Dubai, UAE www.gcasquality.com info.dubai@gcasquality.com</p> 

10.0 ADDITIONAL INFORMATION

9.1 Action against Erosion, Environmental Restoration, and Landscaping of the work.

Application of measures to prevent erosion, restore the environment, and landscape the job includes restoring all elements immediately connected to it. The restoration of other related items indirectly is also suggested, including work roads, auxiliary facilities, and loan and landfill lands.

Cooperation with Alupco offers major opportunities to reduce the impact on our environment. This is achieved due to the properties of aluminum, the opportunities and efforts offered by Alupco. Around 20% of Alupco’s total production is based on recycled aluminum billets being produced at Alupco’s facilities.

Recycling

Aluminum can be reused for the same purpose over and over again. Unlike many other materials, aluminum does not lose its unique properties. Moreover, recycling requires only 5% of the original energy input.

Profiles for “Green” design;

The extrusion technique has few limitations. You can incorporate a number of functions into the section, to make the extrusion easier for the machine and simpler to install. You can save metal by placing most of it where it is needed most and consequently reducing the weight of the structure.

9.2 Information related to Sector EPD

This is not a sector EPD.

9.3 Differences versus previous versions

This is the first version of the EPD.

11.0 REFERENCES

LCA Report: Life Cycle Inventory of Aluminum Profiles by Aluminium Products Company (ALUPCO).

Software: Air.e LCA Version 3.14.0.15 www.solidforest.com

Main database: Ecoinvent 3.9 www.ecoinvent.org

Geographical scope of the EPD: Manufactured in Kingdom of Saudi Arabia and Distributed Globally.

ISO 14040:2006 “Environmental management -- life cycle assessment -- principles and framework”;

ISO 14044:2006 “Environmental management -- life cycle assessment -- requirements and guidelines”;

ISO 14020:2000 “Environmental Labels and declarations - General Principles

ISO 14025:2006 “Environmental labels and declarations -- type III environmental declarations -- principles and procedures”.

EN 15804+A2:2019/AC:2021 European Committee for Standardization: Sustainability of construction works – Environmental product declarations – Core rules for the product category of construction products.

General Programme Instructions of the Environmental Footprint Institute

Product Category Rules: P-3100 (EN 15804:2012+A2:2019/AC:2021)

