Environmental Product Declaration

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

Mechanical Processed Aluminium Profile

manufactured by **Zinca Metal San. ve Tic. A.Ş.**

Programme: The International EPD® System
Programme Operator: EPD International AB
Licensee: EPD International AB
EPD Registration Number: EPD-IES-0010016
Version Date: 2025-03-12
Validity Date: 2030-03-11

EPD INTERNATIONAL EPD SYSTEM
EPD TÜRKIYE THE INTERNATIONAL EPD® SYSTEM
ECO PLATFORM EPD VERIFIED

How to Read This EPD?

An Environmental Product Declaration (EPD) is an ISO Type III Environmental Declaration based on ISO 14025 standard. An EPD transparently reports the environmental performance of products or services from a lifecycle perspective. The preparation of an EPD includes different stages, from acquiring raw materials to the end of life of the final product/service. EPDs are based on international standards and consider the entire value chain. Additionally, EPD is a third-party verified document. This EPD includes several sections described below.

1. General and Program Information

The first part of an EPD has information about the name of the manufacturer and product/service and other general information such as the validity and expiration dates of the document, the name of the program operator, geographical scope, etc. The second page states the standards followed and gives information about the program operator, third-party verifier, etc. The followed Product Category Rule (PCR) is indicated on the second page.

2. Company and Product/Service Information

Information about the company and the investigated product is given in this section. It summarizes the characteristics of the product provided by the manufacturer. It also includes information about the product such as product composition and packaging.

3. LCA Information

LCA information is one of the most important parts of the EPD as it describes the functional/ declared unit, time representativeness of the study, database(s) and LCA software, along with system boundaries.

The table presented in this part has columns for each stage in the life cycle. The considered stages are marked ‘X’ whereas the ones that are not declared are labeled as ‘ND’. Not all EPDs consider the full life cycle assessment for a product’s entire life stages. The ‘System Boundary’ page is also the place where one can find detailed information about the stages and the assumptions made.

4. LCA Results

The results of the Life Cycle Assessment analysis are presented in table format. The first column in each table indicates the name of the impact category and their measurement units are presented in the second column. These tables show an amount at each life cycle stage to see the impact of different indicators on different stages. Each impact can be understood as what is released through the production of the declared unit of the material—in this case, 1 kilogram mechanical processed aluminium profile production. The benefits of reuse/recycling of the declared product is reflected in this section.

The first impact in the table is global warming potential (GWP), which shows how much CO_2 is released at each stage. Other impacts include eutrophication potential, acidification potential, ozone layer depletion, land use related impacts, etc. The second table provides results for resource use and the third table is about the waste produced during the production. The fourth and final table shows the results for the GWP-GHG indicator, which is almost equivalent to the GWP-Total indicator mentioned previously. The only difference is that this indicator excludes the biogenic carbon content by following a certain methodology.

Programme Information

The International EPD® System: EPD International AB Box 210 60 SE-100 31 Stockholm, Sweden, info@environdec.com

EPD Türkiye: NEF O9 B Blok No:7/15, 34415 Kağıthane/İstanbul, Türkiye
info@epdturkey.org

“CEN standard EN 15804 serve as the core Product Category Rules (PCR)”

PCR 2019:14 Construction products, version 1.3.4., Construction EN 15804:2012+A2:2019/AC:2021 Sustainability of Construction Works , UN CPC code is “41532; Bars, rods and profiles, of aluminum”

PCR review was conducted by: Technical Committee of the International EPD® System. See www.environdec.com for a list of members. Review chair: Claudia A. Peña, University of Concepción, Chile.

The review panel may be contacted via the Secretariat www.environdec.com/contact.

External and independent (‘third-party’) verification of the declaration and data, according to ISO 14025:2006, via EPD verification through an individual EPD verification

Third party individual verifier: Vijay Thakur
Approved by: The International EPD® System

Procedure for follow-up of data during EPD validity involves third party verifier:

Yes No **X**

Life Cycle Assessment (LCA)
LCA accountability: Furkan Can Akalın & Yıldıray Yılmaz - Metsims Sustainability Consulting

Zinca Metal San. ve Tic. A.Ş. has the sole ownership, liability, and responsibility for this EPD.

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; apply identical cutoff rules and impact assessment methods (including the same version of characterisation factors); have equivalent content declarations; and be valid at the time of comparison.

About the Company

Owner of the EPD: Zinca Metal San. ve Tic. A.Ş.,
Velimeşe OSB Mahallesi 236.Sokak No:29/1 Ergene/Tekirdağ

Production Plant: Zinca Metal Tekirdağ Velimeşe Plant/ Türkiye

Geographical Scope: Global

Zinca Metal is a leading aluminum extrusion company based in Turkey. With our state-of-the-art facility in Tekirdağ, spanning over 45,000 square meters (485,000 square feet), including a closed area of 25,000 square meters (270,000 square feet), we specialize in manufacturing high-quality aluminum products.

Our integrated production facility houses cutting-edge machinery and equipment, such as our own molding plant, foundry (billet and ingot), aluminum extrusion lines, electrostatic powder coating, anodizing plant, and mechanical processing plant. This allows us to offer comprehensive solutions to our customers while maintaining strict quality control throughout the production process.

At Zinca Metal, we are committed to continuous improvement and excellence in both production and product quality. We hold prestigious certifications such as ISO 9001, ISO 14001, ISO 45001 for our production processes and have obtained product certifications like CE, TSE, EN. Moreover, all our products adhere to international standards like REACH and RoHS.
With a strong focus on customer satisfaction and consistent delivery of superior products, Zinca Metal has established itself as a trusted partner for companies seeking reliable aluminum extrusion solutions. We take pride in serving diverse industries and fulfilling various project requirements with precision and efficiency.

As an industry leader in Turkey's aluminum sector, Zinca Metal is dedicated to providing innovative solutions that meet the evolving needs of our customers. From design to delivery, we strive for excellence at every stage of the manufacturing process.

About the Product

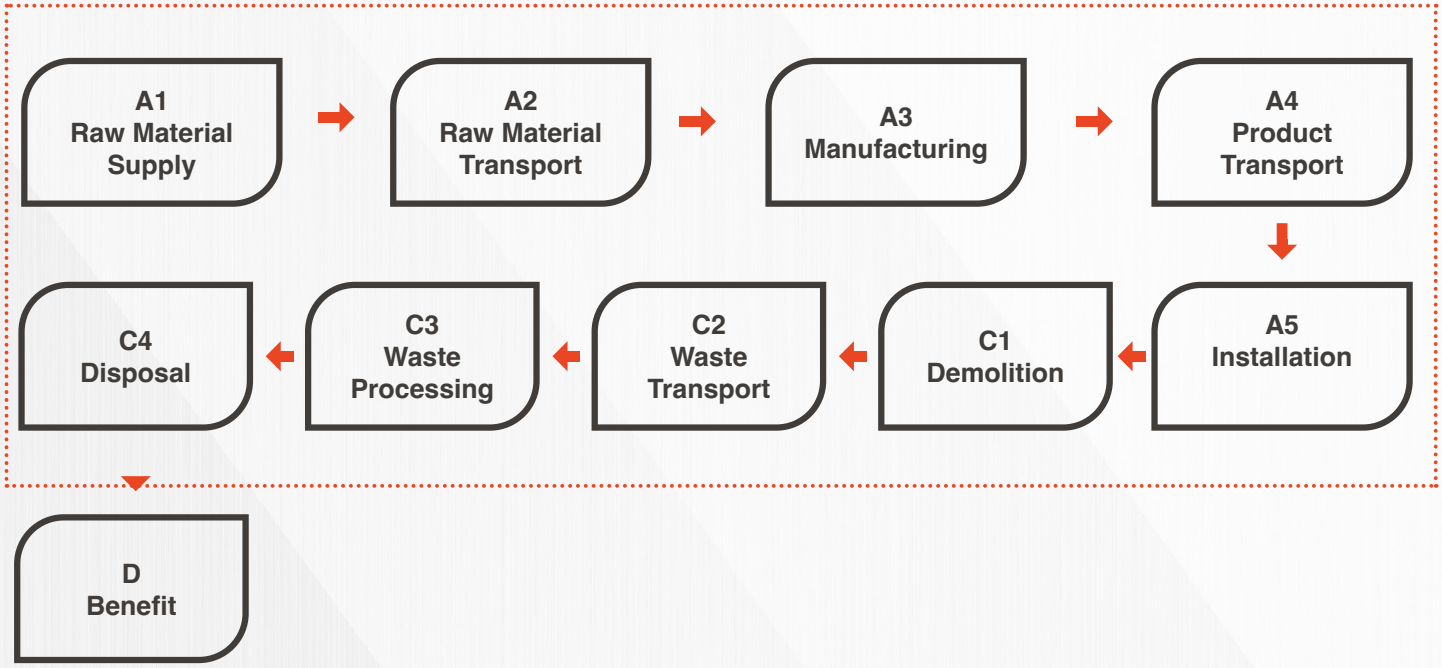
Zinca Metal offers comprehensive mechanical processing services for aluminum profiles, utilizing state-of-the-art CNC machinery for high-precision operations. The available processes include:

Drilling, indentation, countersinking, and milling
Precision cutting (angled and straight)
Punching, tapping, and cut-to-length processing
Bending, slicing, and welding
Laser marking and deburring
Laminating, insulation bar assembly, and adhesive/protective tape application
Custom project assembly based on customer requirements

Each process is conducted under controlled conditions to ensure dimensional accuracy and consistent product quality. The combination of advanced machinery and skilled technical personnel allows for the production of high-precision aluminum profiles tailored to various industrial applications.

The products UN CPC code is 41532.

System Boundaries & Description



A1 - Raw Material Supply

The raw material of the mechanically processed aluminium profile product is the aluminum profile product. The aluminum profile produced by Zinca is subjected to mechanical processes such as drilling and shaping.

A2 - Raw Material Transport

Raw material transport from supplier to manufacturer is considered in raw material supply stage. The distances and routes are calculated accordingly. Depending the manufacturer, locally supplied raw materials are transported via trucks and other supplies come through seaway.

Transport Mode	Type
Road	Vehicle: Lorry Size Class: >32 metric ton Emission Standard: EURO5 Fuel Type: Diesel
Sea	Vehicle: Container Ship DWT (Load Capacity): 43000 tonnes Fuel Type: Heavy Fuel Oil

A3 - Manufacturing

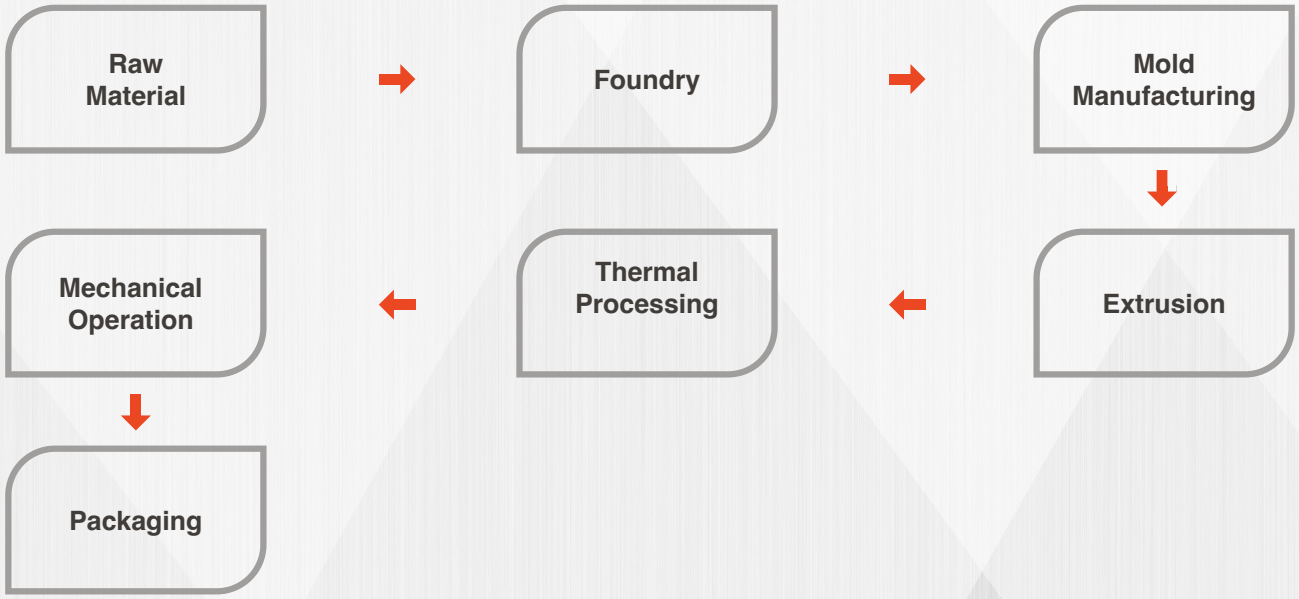
The production of mechanically machined aluminum profiles follows the same initial stages as standard aluminum profiles, beginning in the foundry where primary aluminum, secondary aluminum, and additional raw materials are melted and cast into billets. These billets are subjected to controlled heating and cooling processes in automated lines powered by electricity and natural gas to achieve a uniform material structure.

To maintain quality control, continuous chemical and physical tests are performed to ensure compliance with international standards.

In the extrusion stage, the billets are reheated homogeneously before being pressed through a die under high pressure. The process is fully automated and relies on electricity and natural gas. The extrusion dies used in this stage are produced internally.

After extrusion, the profiles undergo mechanical processing, which includes:

Drilling, threading, and countersinking
Angled and precision cutting
Punch pressing
Slicing and deburring
These operations are carried out using CNC machines, punch press machines, and precision cutting equipment powered by electricity.



The producer uses natural gas and electricity in production and meets all of its electricity needs from renewable sources.

A4 - Product Transport

Product transport from manufacturer to customer is considered in product material supply stage. The distances and routes are calculated accordingly. Depending the customer location, product is transported via trucks and other supplies come through seaway.

Transport Mode	Type
Road	Vehicle: Lorry Size Class: >32 metric ton Emission Standard: EURO5 Fuel Type: Diesel
Sea	Vehicle: Container Ship DWT (Load Capacity): 43000 tonnes Fuel Type: Heavy Fuel Oil

A5 - Installation

No impact was assumed during the installation phase. End of life of packaging waste is calculated under this heading.

C1 - Demolition

In this section, where the impacts caused by the disassembly of the product are calculated, the impact is considered as zero since the disassembly of the product is done manually.

C2 - Waste Transport

A distance of 100 km by lorry 16-32 tonnes from construction/demolition sites to disposal sites has been chosen as a conservative assumption.

Parameter	Value
Vehicle Type	Vehicle: Lorry Size Class: 16-32 metric ton Emission Standard: EURO5 Fuel Type: Diesel
Distance	100 km

C3 - Waste Processing

It is assumed that no waste processing is needed after the product reaches its end-of-life. Recycling has already been calculated in module D, so the impact of this stage is considered zero.

C4 - Disposal

According to European data, 80% of aluminum is recycled and 85% of it can be recycled. As a result of these rates, 32% of recycling is accepted and the remainder is considered landfill.

D - Benefits

In order to consider net output benefits, scrap inputs to the production stage are subtracted from scrap to be recycled at end of life. This remaining net scrap is then delivered to recycling process.

LCA Information

Declared Unit: 1 kg of Mechanical Processed Aluminium Profile

Time Representativeness: 01.09.2023-01.09.2024 (12 months)

Database(s) and LCA Software: Ecoinvent 3.10 and SimaPro 9.6

System Boundaries: Cradle to gate with options, modules A4, C1–C4, module D and with optional modules (A1–A3 + A4 + A5 + C + D).

	Product Stage			Construction Process Stage		Use Stage							End of Life Stage				Benefits and Loads
	Raw Material Supply	Transport	Manufacturing	Transport from the gate to the site	Installation	Use	Maintenance	Repair	Replacement	Refurbishment	Operational Energy Use	Operational Water Use	De-construction	Transport	Waste Processing	Disposal	Reuse-Recycling-Recovery Potential
Module	A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Modules Declared	X	X	X	X	X	ND	ND	ND	ND	ND	ND	ND	X	X	X	X	X
Geography	GLO	GLO	TR	GLO	GLO	-	-	-	-	-	-	-	GLO	GLO	GLO	GLO	GLO
Specific Data Used	2%			-	-	-	-	-	-	-	-	-	-	-	-	-	-
Variation - Products	0%			-	-	-	-	-	-	-	-	-	-	-	-	-	-
Variation - Sites	0%			-	-	-	-	-	-	-	-	-	-	-	-	-	-

(ND: Not declared, X:Included in LCA)

Source of Electricity

The electricity data modeled for the production processes has been sourced from the Ecoinvent 3.10 dataset. The manufacturer has renewable energy agreements and meets its electricity demand from renewable sources. Therefore, instead of the grid electricity factor, the factor for electricity generated in a hydroelectric power plant has been used in the calculations. However, approximately 4% of the electricity consumption came from the grid. The average electricity factor used in the study is 0.023 $kgCO_2eq.$ / kWh. Hydroelectric emission factor is 0 $kgCO_2eq.$ / kWh according to I-REC certification and grid electricity is 0.575 kg CO_2 eq. / kWh according to Ecoinvent 3.10. Ecoinvent 3.10 dataset that represents medium voltage electricity production in Türkiye with the reference year, 2021. The chosen dataset has GWP-GHG impact of 0.575 kg CO2 eq. / kWh. The dataset consists of the following production percentages for electricity. Coal, 37%, Hydro, 33%, Natural gas, 17 %, Wind, 8%, Geothermal, 3%, Biogas, 1%, Other, 1%, Biomass, <1%.

Allocation

Source of raw material, water consumption, energy consumption and raw material transportation were weighted according to relevant production figures. Packaging utilization is presented as the ratio of total packaging utilization to annual production and is common to all three products. In addition, hazardous and non-hazardous waste amounts were also allocated from the total waste generation in data period

Background Data

For all LCA modelling and calculation, with the Ecoinvent database (v3.10) and SimaPro (v9.6) LCA software were used. Characterization factors of EN 15804 reference package based on EF 3.1 are utilized. Impact of infrastructure and capital goods are excluded from the analysis.

Cut-Off Criteria

The criteria for exclusion were set so that individual input flows less than 1% of the total, with a cumulative limit of less than 5%, could be omitted. This was contingent upon confirming that these excluded flows did not significantly alter the reported data, with “significant” defined as affecting the total by less than 5%.

Reach Regulation

No substances included in the Candidate List of Substances of Very High Concern for authorization under the REACH regulations are present in this product either above the threshold for registration with the European Chemicals Agency or above 0.1% (wt/wt).

Product Composition

The content declaration is provided as intervals due to confidentiality reasons.

Product Component	Weight, %	Post-consumer material, weight-%	Biogenic material, kg C/kg
Aluminium profile	99-100	43%	0
Others	<1	0	0
Sum	**100%**	**43%**	**0**

Packaging Composition

Corrugated boardbox, plastic packaging film, craft paper and steel strip are used for packaging.

Product Component	Weight, kg	Weight-% (versus the product)	Biogenic material, kg C/kg
Corrugated boardbox	0.032	3%	0.013
Packaging film	0.004	<1%	0
Craft paper	0.003	<1%	0.001
Steel Strip	0.001	<1%	0
Sum	**0.04**	**4%**	**0.014**

LCA Modelling, Calculation And Data Quality

The results of the LCA with the indicators as per EPD requirement are given in the LCA result tables. All energy calculations were obtained using Cumulative Energy Demand (LHV) methodology, while fresh water use is calculated with selected inventory flows in SimaPro according to the PCR. There are no co-product allocations within the LCA study underlying this EPD. The regional energy datasets were used for all energy calculations. Data quality assessment is given below table.

Stage	Data Type
Raw Material Supply	Generic database, plant spesific data
Raw Material Transport	Generic database, plant spesific data
Manufacturing	Generic database, plant spesific data
Product Transport	Generic database, generic data
End of Life	Generic database, generic data
Benefits and Loads	Generic database, generic data

LCA Results

It is discouraging the use of the results of modules A1-A3 (A1-A5 for services) without considering the results of module C. The estimated impact results are only relative statements, which do not indicate the endpoints of the impact categories, exceeding threshold values, safety margins and/or risks.

CORE ENVIRONMENTAL IMPACTS PER DECLARED UNIT										
Mandatory indicators		**Unit**	**A1-A3**	**A4**	**A5**	**C1**	**C2**	**C3**	**C4**	**D**
Global Warming Potential	Fossil	kg CO_2 eq.	1.21E+01	1.84E-01	4.38E-03	0.00E+00	1.96E-02	0.00E+00	5.02E-02	-1.85E+00
	Biogenic	kg CO_2 eq.	-2.17E-02	3.24E-05	5.54E-02	0.00E+00	3.33E-06	0.00E+00	4.25E-01	-8.52E-03
	Luluc	kg CO_2 eq.	1.89E-02	7.46E-05	3.29E-08	0.00E+00	7.76E-06	0.00E+00	2.45E-05	-5.75E-02
	Total	kg CO_2 eq.	1.21E+01	1.84E-01	5.98E-02	0.00E+00	1.96E-02	0.00E+00	4.75E-01	-1.92E+00
ODP		kg CFC-11 eq.	1.64E-07	2.71E-09	3.39E-12	0.00E+00	2.73E-10	0.00E+00	4.62E-10	-4.02E-08
AP		mol H+ eq.	9.18E-02	8.28E-04	2.02E-06	0.00E+00	6.53E-05	0.00E+00	1.95E-04	-1.23E-02
EP - Freshwater		kg P eq.	3.92E-03	1.41E-05	2.18E-08	0.00E+00	1.53E-06	0.00E+00	6.08E-05	-8.90E-04
EP - Marine		kg N eq.	1.33E-02	2.54E-04	4.41E-06	0.00E+00	2.11E-05	0.00E+00	1.14E-03	-1.36E-03
EP - Terrestrial		mol N eq.	1.36E-01	2.77E-03	8.48E-06	0.00E+00	2.30E-04	0.00E+00	6.48E-04	-1.31E-02
POCP		kg NMVOC	4.61E-02	1.05E-03	3.61E-06	0.00E+00	9.07E-05	0.00E+00	3.35E-04	-6.93E-03
*ADPE		kg Sb eq.	1.14E-05	4.87E-07	3.66E-10	0.00E+00	6.27E-08	0.00E+00	5.52E-08	1.41E-06
*ADPF		MJ	1.07E+02	2.48E-01	3.32E-04	0.00E+00	2.68E-02	0.00E+00	7.86E-02	-1.65E+01
*WDP		m^3 depriv.	1.46E+00	1.33E-02	7.74E-06	0.00E+00	1.24E-03	0.00E+00	-1.96E-01	9.06E-02
Additional environmental impact indicators per declared unit (Optional)										
PM		disease inc.	7.54E-07	1.79E-08	1.65E-11	0.00E+00	1.55E-09	0.00E+00	2.93E-09	-1.66E-07
**IR		kBq U-235 eq.	2.36E+00	2.30E-03	8.99E-06	0.00E+00	2.25E-04	0.00E+00	1.02E-03	-7.10E-01
*ETP-FW		CTUe	3.27E+01	6.33E-01	1.57E-02	0.00E+00	7.31E-02	0.00E+00	8.22E+01	-5.34E+00
*HTP - C		CTUh	3.49E-08	9.07E-10	1.77E-12	0.00E+00	1.01E-10	0.00E+00	1.36E-10	-1.07E-08
*HTP - NC		CTUh	8.87E-08	1.67E-09	2.13E-11	0.00E+00	1.71E-10	0.00E+00	5.37E-09	-2.47E-08
*SQP		Pt	2.48E+01	2.58E+00	2.57E-03	0.00E+00	1.64E-01	0.00E+00	7.45E-01	3.51E-01
Legend		A1: Raw Material Supply, A2: Transport, A3: Manufacturing, A1-A3: Sum of A1, A2, and A3, A4: Transport to Site, A5: Installation, C1: Demolition C2: Waste transport, C3: Waste Processing, C4: Disposal, D: Benefits and load								
Acronyms		GWP-total: Climate change, GWP-fossil: Climate change- fossil, GWP-biogenic: Climate change - biogenic, GWP-luluc: Climate change – land use and transformation, ODP: Ozone layer depletion, AP: Acidification terrestrial and freshwater, EP-freshwater: Eutrophication freshwater, EPmarine: Eutrophication marine, EP-terrestrial: Eutrophication terrestrial, POCP: Photochemical oxidation, ADPE: Abiotic depletion - elements, ADPF: Abiotic depletion - fossil resources, WDP: Water scarcity, PM: Respiratory inorganics - particulate matter, IR: Ionising radiation, HTP-c: Cancer human health effects, HTP-nc: Non-cancer human health effects, SQP: Land use related impacts, soil quality							
*Disclaimer 1		The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator.								
**Disclaimer 2		This impact category deals mainly with the eventual impact of low dose ionising radiation on human health of the nuclear fuel cycle, It does not consider effects due to possible nuclear accidents, occupational exposure, or due to radioactive waste disposal in underground facilitie. This indicator also does not measure potential ionising radiation from the soil, from radon and from some construction materials is also not measured by this indicator.								

ADDITIONAL MANDATORY IMPACT CATEGORY INDICATORS PER DECLARED UNIT									
Parameter	**Unit**	**A1-A3**	**A4**	**A5**	**C1**	**C2**	**C3**	**C4**	**D**
***GWP - GHG	kg CO_2 eq.	1.21E+01	1.84E-01	7.94E-03	0.00E+00	1.96E-02	0.00E+00	4.46E-01	-1.91E+00
***Disclaimer 3	GWP-GHG = Global Warming Potential total excl. biogenic carbon following IPCC AR5 methodology *The indicator includes all greenhouse gases included in GWP-total but excludes biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. This indicator is thus equal to the GWP indicator originally defined in EN 15804:2012+A1:2013								

RESOURCE USE INDICATORS PER DECLARED UNIT*									
Parameter	**Unit**	**A1-A3**	**A4**	**A5**	**C1**	**C2**	**C3**	**C4**	**D**
PERE	MJ	7.96E+00	3.44E-02	4.54E-01	0.00E+00	3.61E-03	0.00E+00	1.32E-02	-1.40E+01
PERM	MJ	4.54E-01	0.00E+00	-4.54E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PERT	MJ	8.42E+00	3.44E-02	1.60E-04	0.00E+00	3.61E-03	0.00E+00	1.32E-02	-1.40E+01
PENRE	MJ	1.07E+02	2.48E-01	1.70E-01	0.00E+00	2.68E-02	0.00E+00	7.86E-02	-1.65E+01
PENRM	MJ	1.70E-01	0.00E+00	-1.70E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PENRT	MJ	1.07E+02	2.48E-01	3.32E-04	0.00E+00	2.68E-02	0.00E+00	7.86E-02	-1.65E+01
SM	kg	4.30E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
NRSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
FW	m^3	4.89E-02	4.92E-04	7.39E-06	0.00E+00	4.29E-05	0.00E+00	3.67E-04	-1.06E-02
Legend	PERE: Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM: Use of renewable primary energy resources used as raw materials; PERT: Total use of renewable primary energy resources; PENRE: Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials; PENRM: Use of non-renewable primary energy resources used as raw materials; PENRT: Total use of non-renewable primary energy re-sources; SM: Use of secondary material; RSF: Use of renewable secondary fuels; NRSF: Use of non-renewable secondary fuels; FW: Use of net fresh water								

*The Primary Energy Indicators are calculated according to Option A (PCR 2019:14 v. 1.3.4)

WASTE & OUTPUT INDICATORS									
Parameter	**Unit**	**A1-A3**	**A4**	**A5**	**C1**	**C2**	**C3**	**C4**	**D**
HWD	kg	4.70E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
NHWD	kg	1.66E-03	0.00E+00	4.00E-02	0.00E+00	0.00E+00	0.00E+00	6.12E-01	0.00E+00
RWD	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CRU	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MFR	kg	1.66E-0.3	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.88E-01	0.00E+00
MER	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
EE (Electrical)	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
EE (Thermal)	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Legend	HWD: Hazardous waste disposed, NHWD: Non-hazardous waste disposed, RWD: Radioactive waste disposed, CRU: Components for reuse, MFR: Material for recycling, MER: Materials for energy recovery, EE (Electrical): Exported energy electrical, EE (Thermal): Exported energy, Thermal.								

References

Ecoinvent / Ecoinvent Centre, www.ecoinvent.org

EN 15804:2012+A2:2019 / AC:2021 Sustainability of construction works - Environmental Product Declarations - Core rules for the product category of construction products

GPI / General Programme Instructions of the International EPD® System. Version 4.0.

ISO 14020:2000/ Environmental Labels and Declarations — General principles

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The International EPD® System / The International EPD® System is a programme for type III environmental declarations, maintaining a system to verify and register EPD®s as well as keeping a library of EPD®s and PCRs in accordance with ISO 14025. www.environdec.com

Ecoinvent / Ecoinvent Centre, www.ecoinvent.org

SimaPro / SimaPro LCA Software, Pré Consultants, the Netherlands, www.pre-sustainability.com

Metsims / www.metsims.com

Zinca Metal / www.zincametal.com/en/home/

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