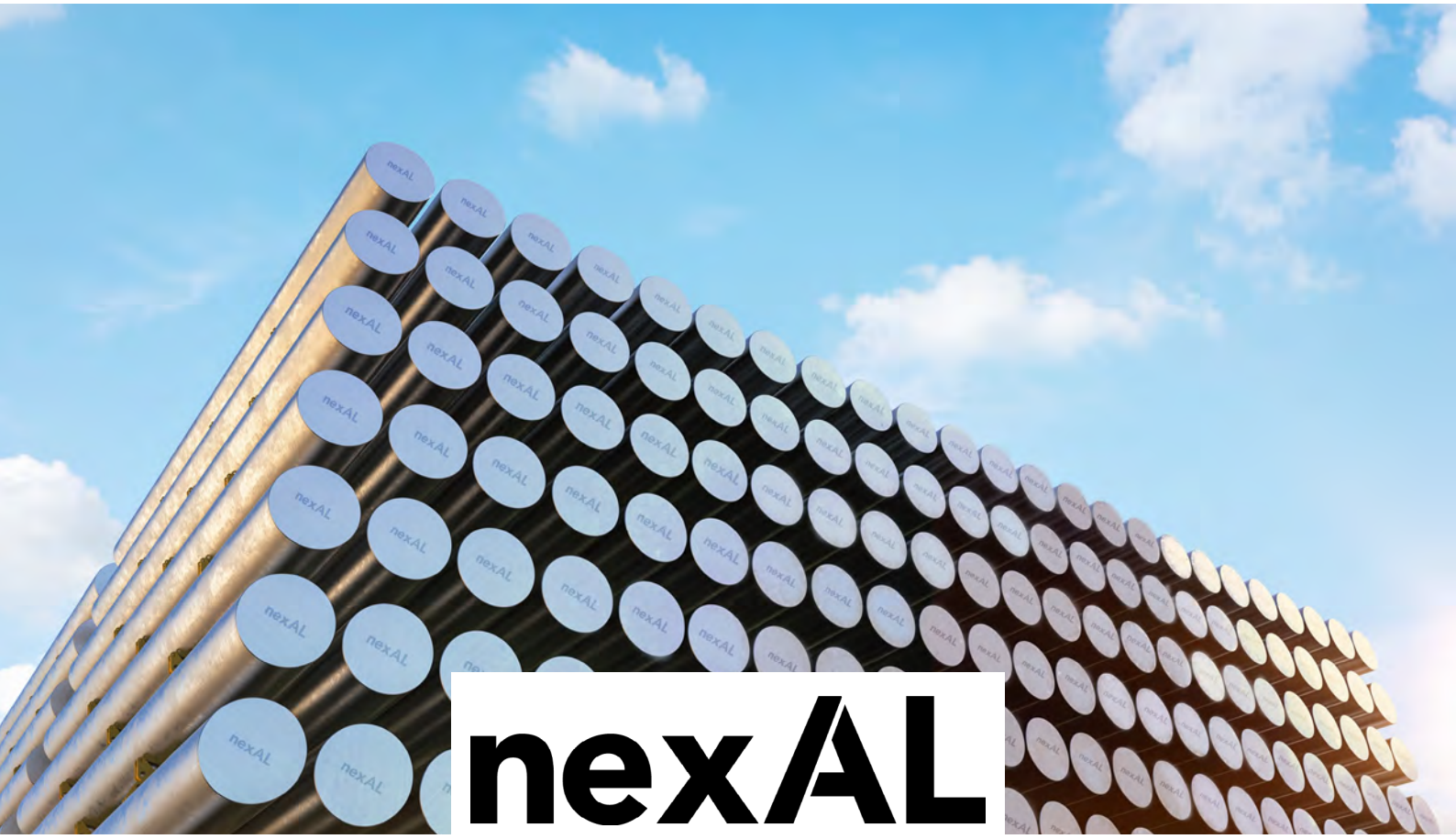
ASAŞ



Environmental Product Declaration

Aluminium Billet, nexAL

Manufactured by **ASAŞ Alüminyum Sanayi ve Ticaret A.Ş.** in accordance with ISO 14025:2006 and EN 15804:2012+A2:2019/AC:2021

Programme: The International EPD® System
Programme Operator: EPD International AB
Local Operator: EPD Türkiye
S-P Code: S-P-10663
Publication Date: 2024-03-21
Revision Date: 2024-09-02
Validity Date: 2026-03-20
Geographical Scope: Global

Programme Information

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

Product Category Rules (PCR):
PCR 2019:14 Construction products, version 1.3.2, Construction EN 15804:2012+A2:2019/AC:2021 Sustainability of Construction Works

UN CPC Code: 415 (Semi-finished products of copper, nickel, aluminium, lead, zinc and tin or their alloys)

PCR review was conducted by: The 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.

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

Third-party verification:
Independent third-party verification of the declaration and data, according to ISO 14025:2006, via:

EPD verification by individual verifier

Third-party verifier: Prof. Ing. Vladimír Koí, Ph.D.,
Šárecká 5,16000 Prague 6 - Czech Republic

Approved by: The International EPD® System

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

Yes [x] No

Life Cycle Assessment (LCA):
LCA accountability: Metsims Sustainability Consulting

ASAŞ Alüminyum Sanayi ve Ticaret A.Ş. has the sole ownership, liability, and responsibility for this EPD.

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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 Programme 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 programme operator, geographical scope, etc. The second page states the standards followed and gives information about the programme operator, third-party verifier, etc. The followed Product Category Rule (PCR) is indicated on the second page.

2. Company and Product Information

Information about the company and the investigated product is given in this section. It summarises 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, and 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 considered are labelled as 'NR'. Not all EPDs consider the full life cycle assessment for a product's entire life stages. The 'System Boundary' page is also 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 kg aluminium billet, NexAL production. The benefits of reusing/recycling of the declared product are 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.

Company Information

ASAŞ Alüminyum Sanayi ve Ticaret A.Ş.

Headquarters

Rüzgarlı Bahçe Mah., Kumlu Sok. No.2 Asaş
Merkezi, 34810 Kavacık, Beykoz – İstanbul, Türkiye

Factory

Küçücek Sanayi Alanı Kıla Mevkii Mudurnu
Çayı Yanı, 54400 Akyazı/Sakarya, Türkiye

Company Information

Based on its stable financial growth trend since its establishment in 1990, **ASAŞ** is one of the leading manufacturers in Europe and exports to more than **90 countries** across 6 continents. With over **3000 employees**, **ASAŞ** provides services for its clients at its Aluminium Extrusion Profile, Aluminium Composite Panel, Aluminium Flat Rolled Products, PVC Profile and Roller Shutter production facilities, which are located in a total of **1.000.000 m² area**, of which **400.000 m²** is enclosed, in Turkey. The company offers the advantage of keeping all processes under control both in terms of quality & cost and getting service from a single point with its fully integrated manufacturing facilities which combine all the production functions that customers need in the supply chain. **ASAŞ GmbH**, a subsidiary of **ASAŞ**, serves as a logistics and service centre with a **72.793 m²** closed area in neighbouring Koblenz city of Neuwied, Germany.

The passion for **"Adding Value"** to every job it does, the sector and the society in which it operates, and sustainability is at the heart of **ASAŞ's** business philosophy. Corporate social responsibility projects are carried out with this philosophy to strengthen the society. **ASAŞART**, positioned as an **"Art Production Centre"**, operates as a learning+ sharing+ designing+ production platform that brings art and design students together with academics and professionals. Within **ASAŞART**, special projects are developed to support young talents in their art career; aluminium sculpture contests, training programmes with universities, international workshops and art exhibitions are organized. Children are at the centre of **ASAŞ**' corporate social responsibility projects. The company established the **ASAŞ Basketball Club** to support children to be successful individuals in the future with sports, social and educational activities.

ASAŞ positions itself as a solution partner with a passion for foreseeing future trends by following innovations and always offering the best for its customers by investing in technology. Therefore, while making investments, the company adopts the principles of **"continuous investment in sustainability, technology, integration and innovation"** to always serve its customers better. With this perspective, the company established the first R & D Centre in the aluminium sector in Turkey. Alloy development, process development and product development studies are carried out under the umbrella of the R&D Centre. The company develops projects to use its resources more efficiently and grows with environment-friendly investments. Besides these, **ASAŞ** participates in international projects to contribute to developing of new processes that help minimise the production processes' environmental impact and increase the energy efficiency.

ASAŞ produces a wide range of value-added products for various sectors like automotive, railway, commercial vehicles, energy, packaging, construction, consumer products, maritime, etc. worldwide. Finished and semi-finished products are produced to meet its customers' project needs. Besides this, the company enriches its knowledge in the field of production with design & product development studies and offers its high-quality products to the market under its own brands. Aluminium architectural systems (door, window, and curtain wall systems), aluminium composite panels, u-PVC door and window systems, aluminium design products (aluminium flag and lighting poles, aluminium furniture etc.), roller shutter systems, garage doors and motor control systems are product groups that the company sells with its own brand.

Product Information

Aluminium billet is a semi-finished product, serving as the raw material for the extrusion process. It is manufactured through Direct Chill Casting, a semi-continuous process. In this method, liquid metal enters a cooled mould, initiating solidification from the surface and progressing towards the inner parts of the billet. Once the shell region is formed, the aluminium surface is subsequently cooled through direct water contact. Thus, the entire cross-section of the billet is cooled through a heat transfer mechanism facilitated by water application.

This process continues until the desired length of the billet is achieved. Following this, the billets are transferred to a horizontal line. Initially, a sufficient amount of engineering scrap is cut from both edges of the billet, and an ultrasonic test is conducted to check for any cracks or porosity within the billet. If the results are acceptable, the billets are taken into the homogenisation furnace, a necessary treatment to achieve a homogeneous macro and microstructure. Within the homogenisation furnace, the billets are exposed to high temperatures for a specific duration. Subsequently, they are rapidly cooled to room temperature to attain the required microstructure for the extrusion process.

Technical Specifications

Alloy	EN AW 6082
Billet diameter	10” (254 mm diameter)
Length	7000 mm
Ultrasonic control	100%

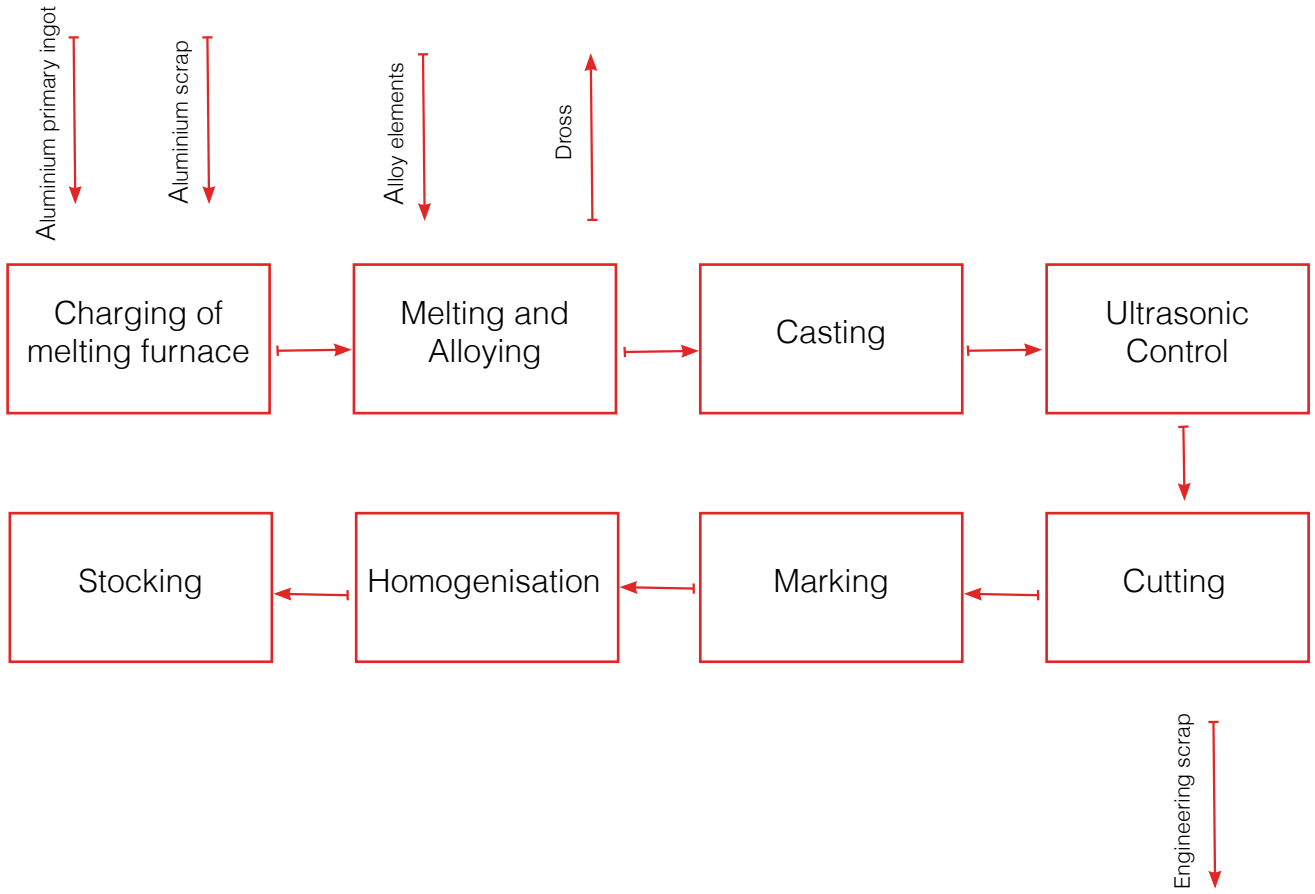
Chemical Composition

Si %	Fe %	Cu %	Mn %	Mg %	Cr %	Al %
0.7-1.3	0.50	0.10	0.40-1.0	0.6-1.2	0.25	Bal.

Product Information

This life cycle assessment study is conducted for ASAŞ aluminium billet, branded as nexAL. NexAL aluminium billets include a higher portion of post-consumer scrap than usual production and low-carbon primer ingot input. Materials used in the production of the investigated product are shown in the table below. Since all the produced billets are fed to the extrusion lines, no packaging material is considered for the product. Process diagram of aluminium billet production is provided below.

Content Declaration	% by 1 kg Aluminium Billet
Post-consumer scrap	54 - 55
Primer aluminium ingot	39 - 40
Pre-consumer scrap	4 - 5
Alloys	1 - 1.5



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System Boundary

A1 – RAW MATERIAL SUPPLY

This stage considers impacts related to the production of raw materials used in aluminium billet making. Primer aluminium ingots, process scraps and post-consumer scraps are used during the production. In addition, alloys such as silicon, manganese, chromium and magnesium are added to the furnace during production. Impacts of all these materials are considered at this stage.

A2 - TRANSPORT

This phase considers the incoming transport of materials to the production site. Transportation routes and distances are supplier-specific. The parameters below are used to calculate transportation related impacts.

Transport Mode	Type
Road	**Vehicle:** Lorry **Size Class:** 16-32 metric ton **Emission Standard:** EURO5 **Fuel Type:** Diesel
Sea	**Vehicle:** Container Ship **DWT** ***(Load Capacity)*****:** 43,000 tonnes **Fuel Type:** Heavy Fuel Oil
Rail	**Vehicle:** Freight train **Mass:** 1000 Gt **Fuel Type:** Diesel

A3 - MANUFACTURING

This stage considers the production-related impacts of aluminium billets. Aluminium billet production starts with receiving materials (ingots & scraps) and charging the melting furnace. After the furnace is charged, the materials are melted and alloyed. Then, the melted liquid aluminium is transferred to the casting area. After casting, the billets go to the Hertwich homogenisation process. This is the final process to have the desired quality and strength of the billets. After homogenisation, processes such as cutting, marking, etc. occur. Once the production is completed, ASA transfers aluminium billets to the extrusion line in order to produce aluminium profiles.

During the production, electricity and natural gas are consumed as energy sources. All the relevant impacts during the production are considered at this stage.

System Boundary

C1 – DECONSTRUCTION / DEMOLITION

This stage considers any possible impact during the deconstruction/demolition phase of the product. It is assumed that no material/energy is used during the deconstruction of the product.

C2 - WASTE TRANSPORT

This stage includes the transport of the discarded product after it reaches end-of-life. The average distance was assumed to be100 km by truck from the demolition site to a waste or recycling area.

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

C3 - WASTE PROCESSING

The effects of any waste treatment process to the discarded product are included in this stage. It is assumed that the product will be shredded and sorted before recycling. Coefficients from PEF Annex C document of European Comission is used in the calculation.

Collection and processing efficiency (%)	
Collected aluminium	**80**
Lost aluminium (during collection etc.)	**20**
Aluminium to recycling	**90**
Lost aluminium (during recycling)	**10**

C4 – DISPOSAL

This stage considers the impacts of landfilled products that do not enter the recycling scheme. Aluminium is a valuable and highly recyclable material; thus, landfilling is not the primary expected end-of-life scheme. However, the lost amount during the collection and recycling is assumed as landfilled.

D - BENEFITS

Some of the aluminium billets investigated in this study include primary ingots and process scraps. Since these materials are considered primary materials, they carry end-of-life benefits when recycled and used for further processes. These materials can substitute the use of primary aluminium billet. The benefit of this substitution is included at this stage.
In addition, discarded primary aluminium scraps must be transported to the treatment site for remelting. Thus, the impact of this transportation and the remelting process is subtracted from the benefit of avoiding the use of primary aluminium billet by following net input-output flows.

LCA Information

DECLARED UNIT
1 kg of aluminium billet, NexAL, produced by ASAŞ.

SYSTEM BOUNDARY
Cradle to gate with modules, C1-C4 and module D (A1–A3 + C + D).

CUT-OFF RULES
1% cut-off is applied. Data for elementary flows to and from the product system contributing to a minimum of 99% of the declared environmental impacts have been included.

REACH REGULATION
No substances included in the Candidate List of Substances of Very High Concern for authorisation 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).

BACKGROUND DATA
For LCA modelling and calculation, ecoinvent database (v3.9.1) and SimaPro (v9.5) LCA software were used.

LCA MODELLING, CALCULATION AND DATA QUALITY
The LCA results with the indicators as per EPD requirements are given in the LCA result tables. All energy calculations were obtained using Cumulative Energy Demand (LHV) methodology, while freshwater use was 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.

BIOGENIC CARBON CONTENT
The product does not contain biogenic carbon, and there is no packaging material input.

PERIOD UNDER REVIEW
The data used for the LCA study concerns the period between June 2023 to January 2024.

ALLOCATIONS
The allocation is made in accordance with the directives of EN 15804+A2. Energy and resources are allocated to the aluminium billet production based on the mass.

ELECTRICITY
The electricity source used for modelling at the manufacturing (A3) stage is taken from the Ecoinvent 3.9.1 dataset, representing the medium voltage impact for Türkiye. The use dataset has carbon impact of 0.578 kg CO_2 eq. / kWh.

DIFFERENCES VERSUS PREVIOUS VERSION
The marketing name of the product has been changed.

LCA Information & Results

	Product Stage			Construction Process Stage		Use Stage							End of Life Stage				Benefits and Loads
	Raw Material Supply	Transport	Manufacturing	Transport	Construction / Installation	Use	Maintenance	Repair	Replacement	Refurbishment	Operational Energy Use	Operational Water Use	Deconstruction / Demolition	Transport	Waste Processing	Disposal	Future reuse, recycling or energy recovery potentials
Module	A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Modules Declared	X	X	X	ND	ND	ND	ND	ND	ND	ND	ND	ND	X	X	X	X	X
Geography	GLO	GLO	TR	-	-	-	-	-	-	-	-	-	GLO	GLO	GLO	GLO	GLO
Specific Data Used	>90%			-													
Variation - Products	0%			-													
Variation - Sites	0%			-													

Core environmental impact indicators (Mandatory)	Unit	A1-A3	C1	C2	C3	C4	D
GWP - Fossil	kg CO_2 eq.	3.88E+00	0.00E+00	1.88E-02	2.10E-01	2.42E-03	-1.50E+00
GWP - Biogenic	kg CO_2 eq.	6.13E-02	0.00E+00	1.70E-05	1.17E-03	2.36E-03	-4.72E-02
GWP - Luluc	kg CO_2 eq.	3.19E-02	0.00E+00	9.14E-07	1.76E-05	7.21E-08	-3.35E-04
GWP - Total	kg CO_2 eq.	3.97E+00	0.00E+00	1.88E-02	2.11E-01	4.78E-03	-1.55E+00
ODP	kg CFC-11 eq.	9.63E-08	0.00E+00	4.10E-10	2.46E-09	6.12E-11	-2.47E-08
AP	mol H+ eq.	2.23E-02	0.00E+00	6.14E-05	8.31E-04	1.53E-05	-7.99E-03
EP - Freshwater	kg P eq.	9.92E-05	0.00E+00	1.51E-07	4.31E-06	3.86E-08	-1.29E-04
EP - Marine	kg N eq.	3.33E-03	0.00E+00	2.09E-05	1.37E-04	9.38E-06	-1.24E-03
EP - Terrestrial	mol N eq.	3.69E-02	0.00E+00	2.23E-04	1.58E-03	6.78E-05	-1.45E-02
POCP	kg NMVOC	1.51E-02	0.00E+00	9.17E-05	5.22E-04	2.45E-05	-4.42E-03
*ADPE	kg Sb eq.	4.67E-06	0.00E+00	6.04E-08	4.79E-06	1.02E-08	-2.69E-06
*ADPF	MJ	4.03E+01	0.00E+00	2.67E-01	1.50E+00	4.85E-02	-3.10E+01
*WDP	m^3 depriv.	2.64E+00	0.00E+00	1.09E-03	1.69E-02	2.74E-04	-3.67E-01
Additional environmental impact indicators (Mandatory							
**GWP-GHG	kg CO_2 eq.	3.90E+00	0.00E+00	1.89E-02	2.11E-01	3.95E-03	-1.51E+00
Additional environmental impact indicators (Optional)							
PM	disease inc.	3.38E-07	0.00E+00	1.49E-09	1.35E-08	3.33E-10	-3.35E-08
***IR	kBq U-235 eq.	6.20E-02	0.00E+00	1.34E-04	4.24E-03	1.72E-04	-2.70E-01
ETP-FW	CTUe	1.63E+01	0.00E+00	1.32E-01	1.03E+00	1.24E+00	-4.36E+00
*HTP - C	CTUh	1.69E-08	0.00E+00	8.55E-12	1.30E-10	4.24E-12	-4.43E-10
*HTP - NC	CTUh	1.37E-07	0.00E+00	1.88E-10	5.52E-09	4.26E-11	-1.18E-08
*SQP	Pt	3.66E+00	0.00E+00	1.59E-01	1.36E+00	9.61E-02	-4.88E+00
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, EP-marine: 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, ETP-FW: Ecotoxicity freshwater, HTP-c: Cancer human health effects, HTP-nc: Non-cancer human health effects, SQP: Land use related impacts, soil quality.							
Legend	A1: Raw Material Supply, A2: Transport, A3: Manufacturing, C1: Deconstruction/Demolition, C2: Waste transport, C3: Waste Processing, C4: Disposal, D: Benefits and loads						

Information on biogenic carbon content according to EN 15804+A2		
Biogenic carbon content in product	kg C	0
Biogenic carbon content in packaging	kg C	-

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LCA Results

Indicators describing resource use (Mandatory)	Unit	A1-A3	C1	C2	C3	C4	D
PERE	MJ	3.47E+01	0.00E+00	4.14E-03	1.79E-01	8.76E-03	-5.63E+00
PERM	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PERT	MJ	3.47E+01	0.00E+00	4.14E-03	1.79E-01	8.76E-03	-5.63E+00
PENRE	MJ	4.03E+01	0.00E+00	2.67E-01	1.50E+00	4.85E-02	-3.10E+01
PENRM	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PENRT	MJ	4.03E+01	0.00E+00	2.67E-01	1.50E+00	4.85E-02	-3.10E+01
SM	kg	5.43E-01	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
NRSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
FW	m^3	2.91E-02	0.00E+00	4.33E-05	6.61E-04	5.55E-05	-1.01E-02
Acronyms	PERE: Use of renewable primary energy excluding resources used as raw materials, PERM: Use of renewable primary energy resources used as raw materials, PERT: Total use of renewable primary energy, PENRE: Use of non-renewable primary energy excluding 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, SM: Secondary material, RSF: Renewable secondary fuels, NRSF: Non-renewable secondary fuels, FW: Net use of fresh water.						

Environmental information describing waste categories (Mandatory)	Unit	A1-A3	C1	C2	C3	C4	D
HWD	kg	1.93E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
NHWD	kg	9.64E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RWD	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Environmental information describing Output flow (Mandatory)	Unit	A1-A3	C1	C2	C3	C4	D
CRU	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MFR	kg	2.42E-05	0.00E+00	0.00E+00	7.20E-01	0.00E+00	0.00E+00
MER	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
EE (Electric)	MJ	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

Acronmys	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.
*Disclamer 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.
**Disclamer 2	GWP-GHG = Global Warming Potential total excl. biogenic carbon following IPCC AR5 methodology The indicator includes all greenhouse gases included in the 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
***Disclamer 3	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 facilities. 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.

References

ISO 9001: 2015 / Quality Management Systems

ISO 50001: 2018 / Energy Management Systems

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

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

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

ISO 14025 / DIN EN ISO 14025:2009-11: Environmental labels and declarations - Type III environmental declarations — Principles and procedures

ISO 14040/44 / DIN EN ISO 14040: 2006-10, Environmental management - Life cycle assessment - Principles and framework (ISO14040:2006) and Requirements and guidelines (ISO 14044:2006)

PCR for Construction Products and Construction Services / Prepared by IVL Swedish Environmental Research Institute, Swedish environmental Protection Agency, SP Trä, Swedish Wood Preservation Institute, Swedisol, SCDA, Svenskt Limträ AB, SSAB, The International EPD System, 2019:14 Version 1.3.2.

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

www.asastr.com

www.metsims.com

Contact Information

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