GlobalEPD

A VERIFIED ENVIRONMENTAL DECLARATION

AENOR

Hot Dip Galvanized Steel Coil

Environmental Product Declaration

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Gonvarri Barcelona

The holder of this Declaration is responsible for its content, as well as for keeping the supporting documentation that justifies the data and statements included during the period of validity.

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AENOR is a founding member of ECO Platform, the European Association of Environmental Product Declaration Verification Programs.

The European Standard EN 15804:2012+A2:2019 serves as the basis for PCR
Independent verification of the declaration and data in accordance with EN ISO 14025:2010 ☐Internal ☒External
Verification body AENOR Product certification body accredited by ENAC with accreditation Nº 1/C-PR468

1. General Information

1.1. The organisation

Gonvarri Barcelona is a key service center within Gonvarri Industries, a leading company in the transformation of flat steel and aluminium. With over 40 years of history, the Barcelona plant has been a reference in steel processing, incorporating hot-dip galvanizing technology for the past 25 years. This enables us to offer high-quality galvanized steel solutions for industries such as construction, agriculture, renewable energy, climate control & ventilation, industrial storage and others.

As a strategic production site, Gonvarri Barcelona provides high-quality galvanized steel solutions tailored to the specific needs of its customers, ensuring durability, corrosion resistance, and compliance with industry standards. The plant integrates advanced manufacturing technologies and adheres to stringent quality and sustainability standards, reinforcing its position as a trusted partner in the steel industry.

Gonvarri Industries meets the metal requirements of our clients through seven specialized business units: Service Centers, Metal Structures, Material Handling, Precision Tubes, Electromobility, Solar Steel and Laser. We are deeply committed to environmentally responsible management of chemicals and all wastes throughout their entire life cycle. In alignment with internationally recognized frameworks, we strive to significantly reduce emissions to air, water, and soil, thereby minimizing their impact on human health and the environment.

1.2. Scope of the declaration

This Environmental Product Declaration (EPD) provides detailed environmental information based on a life cycle assessment (LCA) from cradle to gate, including end-of-life stages (modules C1–C4) and benefits beyond the system boundary (module D) — covering A1–A3 + C1–C4 + D. It refers specifically to Hot Dip Galvanized Steel Coils produced in 2023 by Gonvarri Barcelona at its production facility located in Castellbisbal (Catalonia, Spain).

1.3. Life cycle and compliance.

This EPD has been developed and verified in accordance with the UNE-EN ISO 14025:2010 and UNE-EN 15804:2012+A2:2020 Standards and the following Category Rules:

Product Category Rules Information

PCR	*Sustainability of construction works - Environmental product declarations - Core rules for the product category of construction products*
Registration code and version	EN 15804:2012+A2:2019
Publication date	2019
Programme Operator	AENOR

This Environmental declaration includes the following stages of the life cycle:

Product Stage	A1	Raw material extraction	X
	A2	Transport to factory	X
	A3	Manufacture	X
Construction	A4	Transport to construction site	MNE
	A5	Installation/construction	MNE
Use Stage	B1	Use	MNE
	B2	Maintenance	MNE
	B3	Repair	MNE
	B4	Replacement	MNE
	B5	Refurbishment	MNE
	B6	Use of energy in service	MNE
	B7	Use of water in service	MNE
End of life	C1	Deconstruction/demolition	X
	C2	Transport	X
	C3	Waste treatment	X
	C4	Disposal	X
	D	Potential for reuse, recovery and/or recycling	X

X = Module included in the LCA; NR = Module not relevant; MNE = Module not evaluated

This EPD may not be comparable with those developed in other Programmes or according to different reference documents, in particular it may not be comparable with EPDs not developed according to UNE-EN 15804+A2.

Similarly, this EPD may not be comparable if the origin of the data is different (e.g. databases), not all relevant information modules are included, or they are not based on the same scenarios.

The comparison of construction products should be done on the same function, applying the same functional unit and at the level of the building (or architectural or engineering work), i.e. including the behaviour of the product throughout its life cycle, as well as the specifications of section 6.7.2 of the UNE-EN ISO14025 standard.

1.4. Differences compared to previous versions of this EDP

This version is issued to correct PERE and PENRE values.

2. The Product

2.1. Identification of the product

Hot Dip Galvanized Steel Coils produced by Gonvarri Barcelona included into this EPD are manufactured by coating the surface of Pickled Hot Rolled steel Coils (PHRC) or Finished Cold Rolled steel Coils (FCRC) with zinc layer. Additional surface treatment steps, such as oiling or passivation, can be applied upon customer request.

Finished Cold Rolled steel Coils are provided directly by external suppliers, while Pickled Hot Rolled steel Coils (PHRC) are first manufactured at Gonvarri Tarragona's pickling line located in Moll d'Aragó (Tarragona, Spain), starting from Hot Rolled steel Coils (HRC).

At Gonvarri Barcelona, we produce hot-dip galvanized steel coils tailored for industries that require durability, corrosion resistance, and high performance. Our materials are commonly used in:

- Construction and architecture: Ideal for roofing, façades, structural profiles, and ventilation systems, ensuring strength and longevity in diverse building applications.
- Infrastructure and transport: Used in protective barriers, acoustic insulation panels, and other structural components that enhance safety and durability in public works.
- Agricultural and industrial equipment: Applied in machinery, enclosures, and greenhouse structures, providing resistance to harsh environments.
- Renewable energy: A fundamental material in the manufacturing of structural components for solar panel installations.
- Storage and logistics: Widely used in industrial racking systems and metal shelving, offering robust solutions for warehouses and distribution centers.
- Bespoke industrial applications: Suitable for a range of engineered products, from enclosures and ventilation ducts to mechanical components requiring enhanced corrosion protection.

Our galvanized steel is supplied in various formats, such as coils, sheets, and blanks, allowing for flexible use across different industries. Additionally, it can be processed through techniques like cutting, forming, stamping, and welding, making it adaptable to a wide range of manufacturing and assembly needs.

Hot Dip Galvanized Steel Coils are compliant to EN 10346:2015 and covers a very wide range of galvanized steel grades in Zinc coating masses from Z100 (100g/m^2) to Z375 (375g/m^2).

Hot Dip Galvanized Steel Coils cover a very wide range of galvanized steel families: cold forming and deep drawing, structural steels and high strength low alloy.

In addition to the standard manufacturing process, Gonvarri Barcelona offers various surface finishes and superficial treatments to meet customer requirements:

- Surface finish:
  - Minimised spangle, as coated surface (MA)
  - Smooth, improved surface (MB)
- Superficial treatments:
  - Oiling from 0.5 to 2g per side.
  - Passivation
  - Passivation and oiling

UN CPC Code: 412 Product of iron or steel.

2.2. Product Features

The manufacturer declares the following information on the technical specifications of the product:

Product Features

Name	Value	Unit
Thickness	1.40-4.00	mm
Wide	850-1500	mm
Weight	15-27	t

2.3. Product Composition

The composition declared by the manufacturer is as follows:

Product Composition

Substance/Component	Content[1]	Unit
Steel	987	kg
Zinc	13	kg

[1]These numbers are the average values of product compositions.

The products do not contain any of the substances of very high concern (SVHC) regulated by the Regulation (EC) No 1907/2006 (REACH) or the Regulation (EC) No 1272/2008 of European parliament. Also, no packaging is considered in the scenario.

3. Information regarding the LCA

3.1. Life Cycle Assessment

The LCA has been performed with the support of My Professional Database and Extension database 2024, Extension database III: iron and steel 2024, Extension database XII: ecoinvent v3.10 integrated in LCA for Experts (v 10.8.0.14). The characterization factors used are those included in the UNE EN 15804:2012+A2:2020 standard.

3.2. Declared Unit

The declared unit of the present study is 1 metric tonne of Hot Dip Galvanized Steel Coil.

3.3. Allocation and cut off criteria

The manufacturing processes of the product under study do not generate any co-products, so no load allocations have been made.

The cut-off criteria enable to model a product system without considering the totality of inputs and outputs. These criteria should be consistent with the objective and scope of the system. The rules set out in the 6.3.6. section of EN 15804 have been applied:

- The mass of intermediate flows not considered are less than or equal to 1% of the mass of the elements of the reference product corresponding to the functional unit.
- The energy flows not considered are less than or equal to 1% of the total use of primary energy during the life cycle of the product corresponding to the functional unit.
- The environmental impacts not considered are less than or equal to 5% of the total environmental impacts generated during the life cycle of the product corresponding to the functional unit.

3.4. Representativeness, quality and selection of data

All unit processes included in the system boundaries, the quality of primary and secondary data is addressed in the LCA report. This is done according to ISO 14044 standards, where the following categories of data quality were addressed:

- Time coverage: the data collected in the study pertain to the year 2023.
- Geographical coverage: the data is representative of the region in which the product is distributed.
- Technological coverage: the data collected to develop the life cycle model of the product refer to the technology currently used by the company, its suppliers, and its employees, and is considered representative of the actual life cycle of the product.
- Precision: data collection has been carried out internally by the plant team and whenever possible, primary data has been used.
- Completeness: the data gathered is representative of the product system.
    - Differences in data quality along a product system life cycle and between different product systems is consistent with the goal and scope of the study.
    - Regional and temporal coverage is consistent with the scope of the study.
    - Elements of impact assessment have been consistently applied.
- Consistency: the data is representative of the current typical performance of the product under study. All, the technological, time and geographical coverage, are representative of the goal and scope of the study, as it is detailed along this report.

- Coherence: the assessment methodology is applied uniformly to all components of the analysis.
- Reproducibility: LCA calculation method has been processed, so that data gathering, and processing follows the defined assessment method. All definitions, assumptions, and calculations for all the aspects within the study are gathered and described in this report, as well as in the calculation tool.
- Source of data: the data is contained in the company's internal management systems.
- Uncertainty: assessment uncertainty has been analysed and gathered. Moreover, if data gaps are filled by estimations, a sensibility analysis is carried out so that the uncertainty level is determined.
- All the data in the study are considered primary - those collected first-hand from the resources, such as weighing, invoices, records, etc. - except those regarding the downstream processes, which are secondary.

3.5. Other calculation rules and hypotheses

Information on energy use:

- Electricity: To model the electricity mix of Gonvarri Tarragona and Gonvarri Barcelona plants, CUP redemption data has been employed. Boths plants use GoO with 100% wind power renewable electricity. The GWP of the electricity mix applied for A1-A3 is 1.29E-02 CO_2e/kWh.
- Natural gas: The GWP of the gas mix applied for A1-A3 in Gonvarri Tarragona site is 8.84E-02 CO_2e/MJ and 7.91E-02 CO_2e/MJ in Gonvarri Barcelona Site.

4. System boundaries, scenarios and additional technical information

This EPD describes environmental information related to the life cycle analysis from cradle to gate with modules C1-C4 and D (A1-A3 + C1-C4 + D). At this scope level, all relevant inputs, and outputs at all stages of the life cycle, except the construction and use phase, are considered.

The life cycle stages range from the extraction of all types of raw materials, through transportation, processing, manufacturing, and distribution, to the end-of-life treatment of all components involved in the system.

Product stage (A1-A3): includes everything from the extraction of raw materials (A1), the transport (A2) from suppliers to Gonvarri Barcelona in Castellbisbal (Barcelona, Spain) for FCRC, or to Gonvarri Tarragona in Moll d'Aragó (Tarragona, Spain) for HRC, and the manufacturing of the product (A3) within all the processes involved (pickling in Tarragona and galvanizing in Barcelona, which includes the internal transport between these two sites). This stage also includes in-plant consumption during the manufacturing of the product, such as energy, water or waste generated and its distribution to the end-of-life manager.

End of life stage (C1-C4): includes consumables in the dismantling of the product (C1), transport to the waste manager (C2), together with the corresponding treatment by type of material, being waste processing (C3) and waste disposal (C4).

Benefits and loads beyond the system boundary (D): considers the recovery and recycling potential of the materials deriving from end-of-life processes: the calculation of the environmental benefits deriving from steel is based on the indications provided in the document “Product Category Rules for Type III environmental product declaration of construction products to EN 15804:2012+A2“.

4.1. Processes that precede manufacturing (upstream).

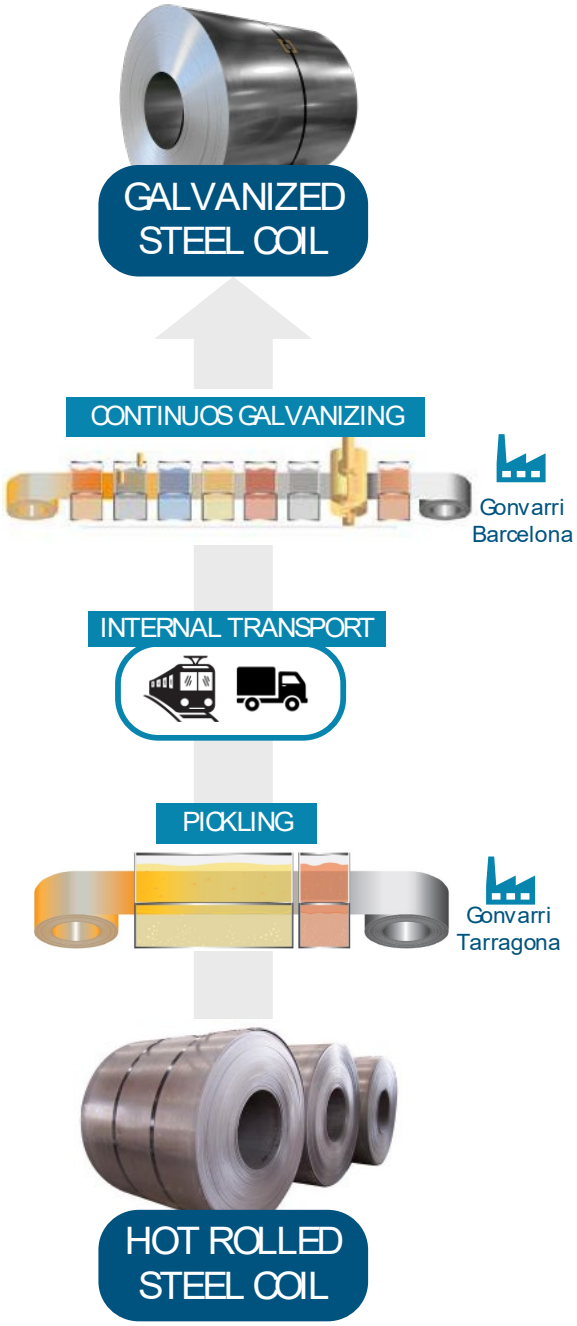
This stage includes the raw material extraction process and the transport in truck, train or ship of the materials from the suppliers' sites to Gonvarri Tarragona or Gonvarri Barcelona manufacturing plant, where the product is processed.

For Hot Dip Galvanized Steel Coil, the standard mix of Hot Rolled steel Coil and Finished Cold Rolled steel Coil suppliers has been considered, whose steelmaking process is based on Electric Arc Furnace (EAF) route, as well as Blast Furnace (BF) and Basic Oxygen Furnace (BOF) route.

4.2. Product Manufacturing (A3)

This stage includes all manufacturing processes carried out at Gonvarri facilities, including the internal transport of semi-finished products between sites.

For HRC, the coil is first pickled at Gonvarri Tarragona. After pickling, the coils are transported via train or truck to Gonvarri Barcelona where they undergo the galvanization process.



Whereas for FCRC, the coils are directly supplied to Gonvarri Barcelona, where they are galvanized.

For both plants, electricity, natural gas, water and every chemical product consumption as well as the waste generated during the manufacturing stage of the product have been considered.

To model the electricity mix of the Gonvarri Barcelona and Gonvarri Tarragona plants, GoO redemption system has been employed.

During the manufacturing, waste is generated in both sites. This waste is either sent to material recovery or landfill according to the waste management companies' processes. Therefore, transport from the sites to the waste management companies is also included.

4.3. End of life stage

For deconstruction module (C1), considering that no better data is available, according to JRC technical reports of Model for Life for Life Cycle Assessment (LCA) of building, an energy consumption value of 0.239 MJ/kg was assumed.

Since the product does not return to the manufacturing plant at its end of life and the lack of information on the final waste treatment, EoL statistics for each material have been defined according to the recommended material-specific values outlined in the American Institute of Steel Construction and JRC technical reports on the Model for Life Cycle Assessment (LCA) of buildings.

End of life

Parameter	Steel	Zinc	Unit (expressed by functional unit
Collection process, specified by type	967	0	kg collected separately
	20	13	kg collected with mixed construction waste
Recovery system, specified by type	967	0	kg for recovery
	0	0	kg for reuse
	0	0	kg for energy recovery
Disposal, specified by type	20	13	kg product or material for final disposal
Hypotheses for the development of scenarios	50	50	km by truck

4.4. Benefits and burdens beyond the system

This stage corresponds to the potential for reuse, recovery and/or recycling, expressed as net benefits and impacts. The inputs and outputs with the following aspects have been included in the benefits and loads beyond the system boundaries stage:

- Loads and benefits related to the export of secondary materials.
- Loads and benefits related to the export of secondary fuels.
- Loads and benefits related to the export of energy as a result of waste incineration.
- Loads and benefits related to landfill energy export

Collecting scrap at the end of the product's life and recycling it through the steelmaking process enables the saving of primary, virgin steel production. The loads and benefits related to the export of secondary materials associated with the steel scrap is thus equal to the credit associated with the avoided primary production of steel, minus the burden associated with the recycling of steel scrap to make new steel, multiplied by the yield of this process to consider losses in the process. However, potential environmental benefits are given for the net steel scrap that is produced, calculated as follows:

Net scrap = Amount of scrap recycled at end of life - Scrap input from previous product life cycles

Parameter	Steel
Scrap input from previous product life cycles	84 kg
Amount of scrap recycled at end of life	967 kg
Net scrap	883 kg

4.5. Biogenic Carbon Content

Biogenic carbon content is not declared as it is less than 5% of the total content. In fact, there is no biogenic carbon content in either the product or its packaging.

5. Declaration of LCA and LCI environmental parameters

Environmental Impacts

The estimated impact results are relative and do not indicate the final value of the impact categories, nor do they refer to threshold values, safety margins or risks.

Parameter	Unit	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
GWP-total	kg CO_2 eq	2.37E+03	NR	NR	NR	NR	NR	NR	NR	NR	NR	2.66E+00	1.04E+01	2.50E+01	1.04E+01	-1.75E+03
GWP-fossil	kg CO_2 eq	2.37E+03	NR	NR	NR	NR	NR	NR	NR	NR	NR	3.70E+00	1.05E+01	2.53E+01	1.32E+00	-1.75E+03
GWP-biogenic	kg CO_2 eq	9.94E-01	NR	NR	NR	NR	NR	NR	NR	NR	NR	-1.38E+00	-2.67E-01	-3.28E-01	9.07E+00	2.84E+00
GWP-luluc	kg CO_2 eq	2.60E+00	NR	NR	NR	NR	NR	NR	NR	NR	NR	3.37E-01	1.74E-01	3.57E-02	3.02E-03	-8.57E-01
ODP	kg CFC11 eq	1.39E+10	NR	NR	NR	NR	NR	NR	NR	NR	NR	2.02E-12	1.04E-12	3.47E-07	2.34E-12	5.53E-09
AP	mol H^+ eq	8.05E+00	NR	NR	NR	NR	NR	NR	NR	NR	NR	1.32E-02	1.48E-02	2.78E-01	4.99E-03	-4.02E+00
EP-freshwater	kg P eq	5.07E+01	NR	NR	NR	NR	NR	NR	NR	NR	NR	8.55E-05	4.42E-05	1.44E-02	1.15E-04	-1.67E-04
EP-marine	kg N eq	4.03E+00	NR	NR	NR	NR	NR	NR	NR	NR	NR	2.94E-03	5.48E-03	6.48E-02	1.63E-03	-9.76E-01
EP-terrestrial	mol N eq	1.92E+01	NR	NR	NR	NR	NR	NR	NR	NR	NR	3.87E-02	6.51E-02	7.25E-01	1.43E-02	-1.06E+01
POCP	Kg NMVOC eq	5.88E+00	NR	NR	NR	NR	NR	NR	NR	NR	NR	1.23E-02	1.40E-02	2.17E-01	7.63E-03	-3.24E+00
ADP-minerals& metals [2]	kg Sb eq	4.41E+01	NR	NR	NR	NR	NR	NR	NR	NR	NR	1.70E-06	8.82E-07	1.56E-03	5.05E-08	-1.95E-05
ADP-fossil [2]	MJ	2.06E+04	NR	NR	NR	NR	NR	NR	NR	NR	NR	2.61E+02	1.35E+02	3.63E+02	1.40E+01	-1.34E+04
WDP [2]	m^3 worl eq depriv	2.87E+02	NR	NR	NR	NR	NR	NR	NR	NR	NR	2.98E-01	1.54E-01	7.17E+00	7.61E-02	-1.46E+01

GWP - Total: Global Warming Potential; **GWP - fossil**: Global warming potential of fossil fuels; **GWP - biogenic**: Biogenic Global Warming Potential; **GWP - luluc** : Global warming potential of land use and land use change; **ODP:** Stratospheric Ozone Depletion Potential; **AP:** Acidification potential, accumulated surplus; **EP-freshwater:** Eutrophication potential, fraction of nutrients that reach the final freshwater compartment; **EP-marine:** Eutrophication potential, fraction of nutrients that reach the final compartment of seawater; **EP-terrestrial:** Eutrophication potential, cumulative surplus; **POCP:** tropospheric ozone formation potential; **ADP-minerals&metals**: Abiotic resource depletion potential for non-fossil resources; **APD-fossil:** Abiotic Resource Depletion Potential for fossil resources; **WDP:** Water deprivation potential (user), weighted water deprivation consumption. **NR:** Not relevant

Additional environmental impacts

Parameter	Unit	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
PM	disease incidence	1.57E-04	NR	NR	NR	NR	NR	NR	NR	NR	NR	1.55E-07	1.50E-07	3.68E-06	5.53E-08	-5.89E-05
IRP [1]	kBq U235 eq	1.83E+01	NR	NR	NR	NR	NR	NR	NR	NR	NR	4.72E-02	2.44E-02	2.55E+00	2.47E-02	2.36E+01
ETP-fw [2]	CTUe	8.06E+03	NR	NR	NR	NR	NR	NR	NR	NR	NR	1.92E+02	9.95E+01	2.48E+02	9.21E+00	-2.02E+03
HTP-c [2]	CTUh	7.41E-07	NR	NR	NR	NR	NR	NR	NR	NR	NR	3.86E-09	2.00E-09	2.23E-07	3.43E-10	-2.74E-06
HTP-nc [2]	CTUh	7.05E-06	NR	NR	NR	NR	NR	NR	NR	NR	NR	1.72E-07	8.89E-08	1.39E-06	1.99E-08	2.39E-06
SQP [2]	-	1.10E+03	NR	NR	NR	NR	NR	NR	NR	NR	NR	1.29E+02	6.69E+01	6.14E+02	2.20E+00	1.22E+03

PM: Potential incidence of diseases due to particulate matter (PM) emissions**; IRP:** Human Potential Exposure Efficiency Relative to U235; **ETP-fw:** Comparative Ecosystem Toxic Unit Potential - Freshwater; **HTP-c:** Comparative Ecosystem Toxic Unit Potential - Carcinogenic Effects**; HTP-nc:** Comparative Ecosystem Toxic Unit Potential - Non-Carcinogenic Effects**; SQP:** Soil quality potential index**; NR**: Not relevant

Notice 1: This impact category deals mainly with the eventual impacts of low doses of ionizing radiation on human health, from the nuclear fuel cycle. It does not consider the effects due to possible nuclear accidents or occupational exposure due to the disposal of radioactive waste in underground facilities. The ionizing radiation potential of the ground, due to radon or from some construction materials, is not measured with this parameter either.

Warning 2: The results of this indicator of environmental impact should be used with caution, since the uncertainties of the results are high and the experience with this parameter is limited.

Use of resources

Parameter	Unit	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
PERE	MJ	2.85E+03	NR	NR	NR	NR	NR	NR	NR	NR	NR	2.21E+01	1.14E+01	5.55E+01	1.86E+00	2.33E+03
PERM	MJ	2.64E-01	NR	NR	NR	NR	NR	NR	NR	NR	NR	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PERT	MJ	2.85E+03	NR	NR	NR	NR	NR	NR	NR	NR	NR	2.21E+01	1.14E+01	5.55E+01	1.86E+00	2.33E+03
PENRE	MJ	2.57E+04	NR	NR	NR	NR	NR	NR	NR	NR	NR	2.61E+02	1.35E+02	3.63E+02	1.40E+01	-1.34E+04
PENRM	MJ	3.28E-03	NR	NR	NR	NR	NR	NR	NR	NR	NR	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PENRT	MJ	2.57E+04	NR	NR	NR	NR	NR	NR	NR	NR	NR	2.61E+02	1.35E+02	3.63E+02	1.40E+01	-1.34E+04
SM	kg	8.40E+01	NR	NR	NR	NR	NR	NR	NR	NR	NR	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.83E+02
RSF	MJ	1.27E-21	NR	NR	NR	NR	NR	NR	NR	NR	NR	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
NRSF	MJ	1.49E-20	NR	NR	NR	NR	NR	NR	NR	NR	NR	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
FW	m^3	1.38E+02	NR	NR	NR	NR	NR	NR	NR	NR	NR	2.48E-02	1.28E-02	1.67E-01	2.40E-03	-1.18E+00

PERE: Use of renewable primary energy excluding primary renewable energy resources used as raw material; **PERM:** Use of primary renewable energy used as raw material; **PERT:** Total use of primary renewable energy; **PENRE**: Use of non-renewable primary energy, excluding non-renewable primary energy resources used as raw materials; **PENRM**: Use of non-renewable primary energy used as raw material; **PENRT**: Total use of non-renewable primary energy; **SM:** Use of secondary materials; **RSF:** Use of renewable secondary fuels; **NRSF**: Use of non-renewable secondary fuels; **FW:** Net use of running water resources; **NR:** Not relevant

Waste Categories

Parameter	Unit	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
HWD	kg	1.29E+05	NR	NR	NR	NR	NR	NR	NR	NR	NR	8.46E-09	4.38E-09	1.56E+00	3.00E-09	5.94E-06
NHWD	kg	6.55E+01	NR	NR	NR	NR	NR	NR	NR	NR	NR	4.07E-02	2.10E-02	0.00E+00	3.12E+01	-2.64E+01
RWD	kg	4.21E-01	NR	NR	NR	NR	NR	NR	NR	NR	NR	3.38E-04	1.75E-04	0.00E+00	1.77E-04	2.11E-01

HWD: Hazardous Waste Disposed; **NHWD:** Non-hazardous waste disposed of; **RWD:** Radioactive waste disposed of; **NR:** Not relevant

Output flows

Parameter	Unit	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
CRU	kg	0.00E+00	NR	NR	NR	NR	NR	NR	NR	NR	NR	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MFR	kg	3.97E+01	NR	NR	NR	NR	NR	NR	NR	NR	NR	0.00E+00	0.00E+00	9.67E+02	0.00E+00	0.00E+00
MER	kg	0.00E+00	NR	NR	NR	NR	NR	NR	NR	NR	NR	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
EE	MJ	0.00E+00	NR	NR	NR	NR	NR	NR	NR	NR	NR	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

CRU: Components for reuse; **MFR:** Materials for recycling; **MER:** Materials for energy recovery**; EE:** Exported energy**; NR:** Not relevant

Information on biogenic carbon content

Biogenic carbon content	Unit	Result by declared functional unit
Product biogenic carbon content - KgC	Kg C	0
Biogenic carbon content packaging - KgC	Kg C	0

6. Additional Environmental Information

No additional Environmental Information is reported.

References

[1] General Instructions of GlobalEPD Programme 3rd revision (09-10-2023)

[2] UNE-EN ISO 14025:2010 Environmental labels and declarations Tpye III engironmental delcarations. Principles and procedures (ISO 14025:2006).

[3] UNE-EN 15804:2012+A2:2020 Sustainability of construction Works. Environmental product declarations. Core rules for the product category of contruction.

[4] UNE-EN ISO 14040. Environmental managment. Life cycle assesment. Principles and frame work. (ISO 14040:2006).

[5] UNE-EN ISO 14044. Environmental managment. Life cycle assesment. Requirements and guidelines (ISO 14044:2006).

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