Environmental Product Declaration

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

CARBON STEEL COILS, STRIPS AND SHEETS FOR COILS

Marcegaglia Carbon Steel S.p.A.

Programme: **The International EPD® System, www.environdec.com**

Programme operator: **EPD International AB**
EPD registration number: **EEPD-IES-0007026:005 (S-P-07026)**
Publication date: **2022-10-10**
Revision date: **2025-05-15**
Valid until: **2027-09-20**

MARCEGAGLIA CARBON STEEL

ECO PLATFORM EPD VERIFIED

EPD INTERNATIONAL EPD SYSTEM

GENERAL INFORMATION

PROGRAMME INFORMATION

Programme	The International EPD® System
Address	EPD International AB Box 210 60 SE-100 31 Stockholm Sweden
Website	www.environdec.com
E-mail	info@environdec.com

The standard EN 15804 serves as the core product category rules (PCR)

Product Category Rules (PCR):
Construction products, 2019:14, version 1.11, CPC 412

PCR review was conducted by: The Technical Committee of the International EPDR System.
Review chair: Claudia A. Pena - Contact via the Secretariat www.environdec.com/contact

Life Cycle Assessment (LCA)

LCA accountability: Made HSE S.r.l.

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

☒ EPD verification by accredited certification body

Third-party verification: Bureau Veritas Italia Spa is an approved certification body accountable for the third-party verification

The certification body is accredited by: Accredia

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

☒ Yes ☐ No

The EPD owner has the sole ownership, liability, and responsibility for the EPD.

EPDs within the same product category but registered in different EPD programmes, or not compliant with EN 15804, 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. For further information about comparability, see EN 15804 and ISO 14025.

COMPANY INFORMATION

Owner of the EPD:
Marcegaglia Carbon Steel S.p.A.

Contact:
To obtain more information about this product declaration and / or its configurations, the following references are available.

Mail: info.carbonsteel@marcegaglia.com - Tel +39 0376 6851

Company description:
Marcegaglia Carbon Steel S.p.A. is the company of the Marcegaglia Group that transforms and markets flat products (coils, strips, and sheets) in carbon and pre-painted steel (PPGI) and carbon steel pipes.
The company, thanks to advanced production technology and the most modern automation systems, enters the market for the creation of any type of finish on components and accessories, allowing it to satisfy the most demanding and customized requests.

Product/system certifications:
Quality management system ISO 9001
Environmental management system ISO 14001
Health and safety management system ISO 45001
Energy management system ISO 50001
Social responsibility management system SA 8000
Carbon Footprint Product Systematic Approach ISO 14067

Production site's Name and localization:
Gazoldo degli Ippoliti plant: Bresciani street, 16 - 46040 - Gazoldo Degli Ippoliti (MN);
Ravenna plant: Baiona street, 141 - 48123 - Ravenna (RA).

PRODUCT INFORMATION

Product name:
Coils, strips and sheets in carbon steel.

Product identification:
Coils, strips and sheets in carbon steel.

Product description:
Starting with carbon steel coils processed entirely within its integrated and controlled production chain, Marcegaglia Carbon Steel manufactures a wide range of flat products, including pickled, cold-rolled, and galvanized coils; pickled, cold-rolled, and galvanized strips; as well as checkered and rusticated sheets.
Produced with high versatility and flexibility at the Gazoldo degli Ippoliti (MN) and Ravenna (RA) facilities, Marcegaglia's precision flat products benefit from static annealing and skin-pass lines integrated with cold rolling operations.
These processes ensure maximum consistency in mechanical and magnetic properties while also enhancing surface quality to meet specific application requirements.
The company's hot-rolled, cold-rolled, and galvanized coils serve a broad spectrum of industries, including mechanical engineering, packaging, construction, furniture manufacturing, home appliances, and plumbing and heating systems.
The specialized strip range includes grades for deep drawing, semi-processed magnetic steels, and galvanized materials with bright, smooth surfaces tailored for demanding applications such as fine blanking.
Marcegaglia Carbon Steel's flattened sheets are used across various sectors, including construction, urban infrastructure, storage systems, home appliances, mechanical components, and the automotive industry.
Detailed technical specifications for all products are available through the product catalogs on the company's website.

UN CPC code:
41231 Flat-rolled products of non-alloy steel, clad, plated, coated or otherwise further worked.

Geographical scope:
Global

LCA INFORMATION

Functional unit:
The functional unit of the system considered is the ton of flat product.
Reference service life - RSL:
For the products under study it is not possible to quantify the exact useful life as much also depends on their future use. However, it is emphasized that even when the deadline is reached, the product can be recycled and reused again to generate other raw materials.
Time representativeness:
All the data used for this LCA analysis are referred to the year 2024.
Data Quality:
The primary data come from the company and the secondary data come from Ecoinvent database.

Database e software:
Ecoinvent database v.3.11, march 2025 / Software used SimaPro rel. 10.2.0.0.

Description of system boundaries:
The study is "Cradle to gate with modules C1–C4 and module D (A1–A3 + C + D)" (reference: PCR 2019:14 vers.1.11).

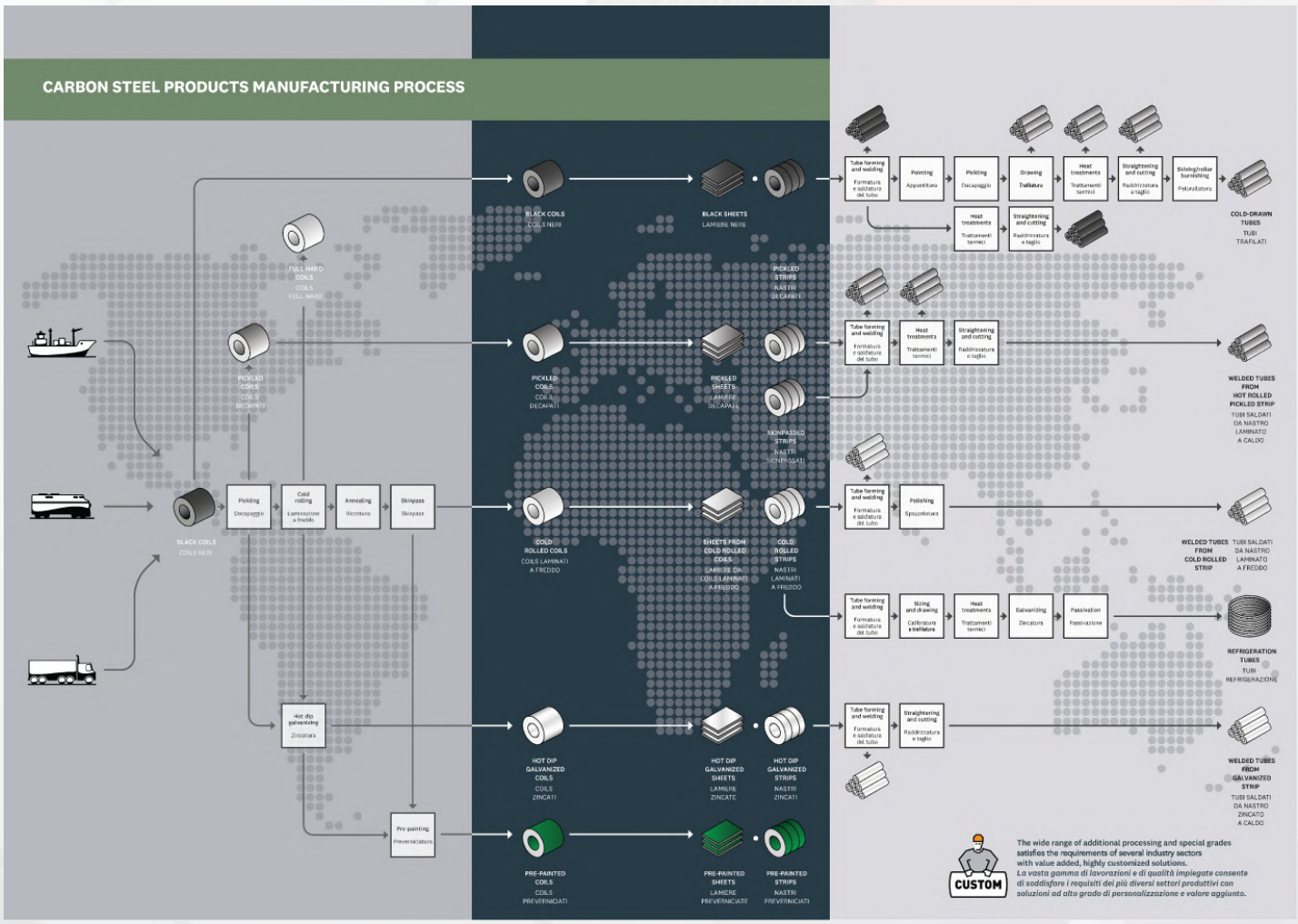
The modules A1-A3 describe the raw material, the transport until the production site and the production's processes.

The modules C1-C4 describe the transport, the demolition process and the end of life of the products. These operations aren't under company's control. In this regard, literature relating to the construction sector is used. It is considered:

- an average diesel consumption equivalent to 46 MJ for each ton of material demolished;
- an average distance of 80 km to transport the material to the recovery center;
- an average electricity consumption of 28 kWh for each ton of material sorted.

Module D considers the recovery and recycling potential of steel deriving from end-of-life processes: the calculation of the environmental benefits deriving from the recovery of steel is based on the instructions provided in the document "Product Category Rules for Type III environmental product declaration of construction products to EN 15804:2012 – Par. 6.3.4.6. Benefits and loads beyond the product system boundary, information Module D".

DESCRIPTION OF MAIN ACTIVITIES



DESCRIPTION OF MAIN ACTIVITIES

Marcegaglia Carbon Steel S.p.A. is the company of the Marcegaglia Group that transforms and markets flat products (coils, strips, and sheets) in carbon steel and pre-painted (PPGI) and carbon steel pipes.

COIL PRODUCTION

The raw material arriving at the Marcegaglia Carbon Steel plant in Ravenna consist of carbon steel coils (almost entirely supplied from the dock on the site) and auxiliary materials.
Auxiliary materials are substances such as hydraulic oils, protective oils, lubricants, paints, pickling products and detergents, which enter as raw materials.
The plant configuration includes the following process units: pickling, rolling, annealing, skin-passing, galvanizing, painting and service center.

The range of semi-finished products and output products deriving from the processes described above is represented by coils:

- black;
- pickled;
- cold rolled (full hard);
- galvanized;
- painted;
- cold (cold rolled, annealed and skin-passed).

Pickling

During the pickling process, a treatment is performed on Black Coils which involves immersion of the strip in a hydrochloric acid solution at 18 ÷ 22% at a temperature of about 80 ° C in order to eliminate the surface layer and its impurities.
The treatment is carried out on a special automatic system that involves the unwinding of the strip, the induction welding of the tail of the strip during the treatment phase with the head of the next coil/strip, an accumulation floop to guarantee the continuous feeding of the line, the passage to the inside the tanks containing the acid solution and the rewinding of the pickled coil/strip.nThe handling of the coils is carried out by means of bridge cranes.
To eliminate the oxides resulting from the oxidation of the material in the hot rolling phase, which constitute an obstacle to the following treatments and to obtain a better quality material, the strip is subjected to the pickling process which consists in the removal of surface impurities with an acid medium.

Rolling

The rolling system carries out a reduction in the thickness of the coils resulting from the pickling process, by means of a pressure system through special cylinders that are constantly lubricated and cooled.
The following two cold rolling systems are also present: reversing rolling with 2 stands – Quarter and reversing rolling mill.

Annealing

Annealing (bell furnaces) is a heat treatment that consists of heating the rolled steel coils from the rolling lines to a certain temperature, in non-oxidizing environments, in order to eliminate the hardening of the cold rolled strips and to thicken the grain to obtain a "softening" proportional to the degree of hardness required for the strip itself.

Skin-passing

Cold skin-passing of the coils coming from the heat treatment in the annealing furnaces is carried out. The processing essentially consists of two phases: skin-passing of the strip (percentage elongation) and subsequent application of a protective oil film.

Galvanizing

The galvanizing process allows to obtain galvanized coils starting from coils resulting from the pickling process or from cold rolled coils (Full Hard).

Pre-painting

The activity carried out in the pre-painting department consists of the continuous painting of hot-dip galvanized and cold-rolled coils with a "coil coating" system and subsequent drying and polymerization in the oven.

Service center

The coils coming from different phases of the plant's production cycle are processed on the shearing or flattening lines. From the slitting line, strips of various dimensions are obtained (coil unwinding and longitudinal cutting with subsequent rewinding of the strips thus produced) while from the flattening lines flattened sheets are obtained (coil unwinding and flattening with subsequent transverse cutting to the desired length and unloading).

DESCRIPTION OF MAIN ACTIVITIES

STRIPS PRODUCTION

The production cycle at the Marcegaglia Carbon Steel plant in Gazoldo degli Ippoliti begins with the arrival at the company of the steel coils transported by road and delivered to the plant. In detail, the processing cycle is performed in the phases described below: pickling, cold-rolling, annealing, skin-passing and flattening.
After arriving at the factory, the raw materials are processed by the respective systems to obtain the various components that make up the strips and the accessory component.
The strips leaving the plants mentioned above are:

- from black coil;
- from pickled coil;
- from cold rolled coil (full hard);
- from galvanized coil;
- from cold coil (cold rolled, annealed and skin-passed).

Pickling
Through the pickling process, a treatment is carried out on Black Coils which involves immersing the strip in an 18÷22% hydrochloric acid solution at a temperature of about 80°C in order to eliminate the surface layer and its impurities.

Cutting line (raw material shears)
The pickled coils, depending on the physical characteristics of the obtainable product, are sent to the cutting lines for raw material.
These machines produce a longitudinal cutting action to obtain strips of various widths that will follow a diversified processing cycle to obtain welded tubes, open profiles, sheets, strips according to the desired production.

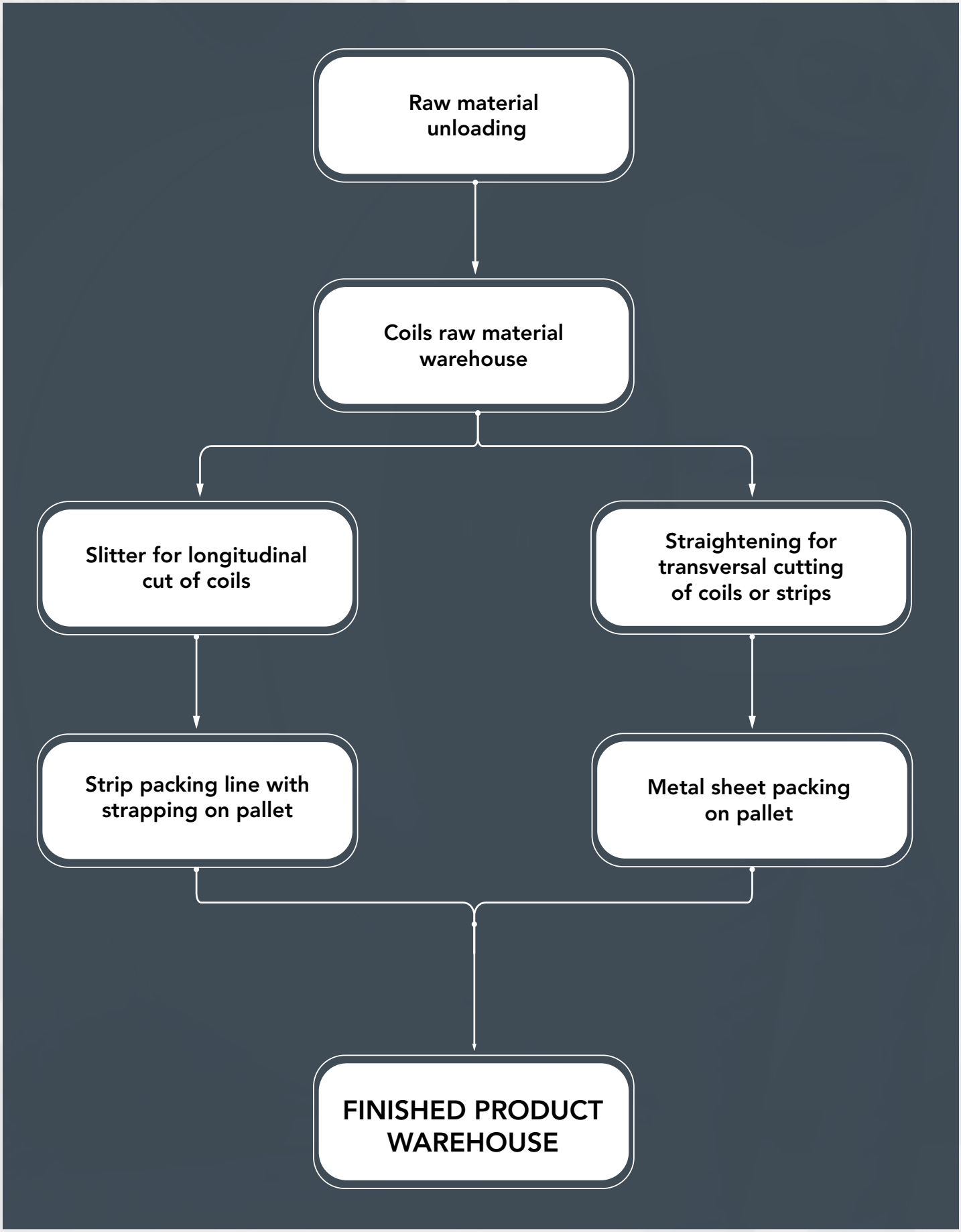
Annealing
Annealing is a heat treatment that consists of heating the cold-rolled steel coils to a certain temperature, in non-oxidising environments, keeping them "hot" for a more or less long period and then always cooling them in non-oxidising environments.
The purpose of annealing is to eliminate the hardening of the cold-rolled strips and to enlarge the grain to obtain a softening proportional to the degree of printability required for the strip itself (recrystallization annealing).

PRODUCTIONS OF FLAT SHEETS

Flat sheets of numerous sizes are obtained from the rolled sheets (coils) by means of machines called leveling machines. The machine is equipped with rollers and counter rollers to obtain perfect flatness. A special cut obtains the required lengths from a minimum of 400 mm to a maximum of 1300 mm. (transportable materials).
The packaging of the layers of sheet metal is carried out in line with a special mechanical stacker.
This is how the following products are obtained:

- black;
- from hot rolled coil;
- from cold-rolled coil;
- from cold rolled coil (with annealing and skinpassing)
- pickled;
- slit;
- embossed.

DESCRIPTION OF MAIN ACTIVITIES



CONTENT INFORMATION:

Product content	Weight, kg	Post-consumer material weight, %	Biogenic material weight, % and kg C/kg
Steel	1,000	17.8%	-

The materials used for the packaging of the final products consist of plastic and / or metal straps, wooden saddles and polyester bands. The quantities of these packaging compared to one ton of final product identify a value of less than 1%.

Allocation's rules:
Mass-based allocation took place for energy consumption, water drains, air emissions and waste.

MODULES DECLARED

Modules declared, geographical scope, share of specific data (in GWP-GHG indicator) and data variation:

	Product stage			Construction process stage		Use stage							End of life stage				Resource recovery stage
	Raw material supply	Transport	Manufacturing	Transport	Construction installation	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Disposal	De-construction demolition	Transport	Waste processing	Disposal	Reuse-Recovery-Recycling potential
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	IT	-	-	-	-	-	-	-	-	-	GLO	GLO	GLO	GLO	ITA
Specific data used	85%			-	-	-	-	-	-	-	-	-	-	-	-	-	-
Variations product	Not relevant			-	-	-	-	-	-	-	-	-	-	-	-	-	-
Variations site	Not relevant			-	-	-	-	-	-	-	-	-	-	-	-	-	-

X = Module considered | **ND** = Module not declared | **GLO** = Global | **IT** = Italy

ENVIRONMENTAL INFORMATION

The environmental performance indicators refer to 1 ton of flat product.

Environmental impact

IMPACT CATEGORY	ABB.	UNIT
Climate change - total	GWP - t	kg CO_2 eq
Climate change - Fossil	GWP - fossil	kg CO_2 eq
Climate change - Biogenic	GWP - biogenic	kg CO_2 eq
Climate change - Land use and LU change	GWP - luluc	kg CO_2 eq
Climate change - Greenhouse Gases	GWP - GHG	kg CO2 eq
Ozone depletion	ODP	kg CFC11 eq
Photochemical ozone formation	POCP	kg NMVOC eq
Acidification of land and water	AP	mol H+ eq
Eutrophication	EP - freshwater	kg P eq
	EP - marine	kg N eq
	EP - terrestrial	mol N eq
Water use *	WDP	m^3 depriv.
Resource use, fossils *	ADP - F	MJ
Resource use, minerals, and metals *	ADP - MM	kg Sb eq

* The results of this environmental impact indicator shall be used with care as the uncertainties of the results are high and as there is limited experience with the indicator.

Resource use

IMPACT CATEGORY	ABB.	UNIT
Use of renewable primary energy excluding renewable primary energy resources used as raw materials	PERE	MJ
Use of renewable primary energy resources used as raw materials	PERM	MJ
Total use of renewable primary energy resources (primary energy and primary energy resources used as raw materials)	PERT	MJ
Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials	PENRE	MJ
Use of non-renewable primary energy resources used as raw materials	PENRM	MJ
Total use of non-renewable primary energy resources (primary energy and primary energy resources used as raw materials)	PENRT	MJ
Use of secondary material	SM	kg
Use of renewable secondary fuels	SRF	MJ
Use of non-renewable secondary fuels	NRSF	MJ
Use of net fresh water	FW	m^3

Waste production

IMPACT CATEGORY	ABB.	UNIT
Hazardous waste disposed	HW	kg
Non-hazardous waste disposed	NHW	kg
Radioactive waste disposed	RW	kg

Output flows

IMPACT CATEGORY	ABB.	UNIT
Reuse components	REUSE	kg
Materials for recycle	RECYCLE	kg
Materials for energy recovery	EN-REC	kg
Exported energy-electrical energy	EE-E	MJ
Exported energy-thermal energy	EE-T	MJ

BLACK COIL

ID	U.o.M.	A1-A3	C1	C2	C3	C4	D
GWP - t	kg CO_2 eq	2.355E+03	4.631E+00	8.446E+00	1.923E+01	7.266E-01	-1.381E+03
GWP - fossil	kg CO_2 eq	2.352E+03	4.630E+00	8.438E+00	1.925E+01	7.259E-01	-1.378E+03
GWP - biogenic	kg CO_2 eq	1.693E+00	9.376E-04	5.158E-03	-1.458E-02	3.553E-04	-2.159E+00
GWP - luluc	kg CO_2 eq	1.071E+00	4.737E-04	3.030E-03	1.887E-03	4.126E-04	-8.757E-01
GWP - GHG	kg CO_2 eq	2.354E+03	4.631E+00	8.442E+00	1.925E+01	7.265E-01	-1.380E+03
ODP	kg CFC-11 eq	7.277E-06	6.878E-08	1.846E-07	3.419E-07	2.024E-08	-6.773E-06
POCP	kg NMVOC eq	7.351E+00	6.310E-02	4.425E-02	5.468E-02	7.693E-03	-4.647E+00
AP	mol H+ eq	9.480E+00	4.138E-02	2.792E-02	8.442E-02	5.084E-03	-5.964E+00
EP - freshwater	kg P eq	9.962E-01	1.493E-04	5.953E-04	5.795E-03	6.357E-05	-8.118E-01
EP - marine	kg N eq	2.312E+00	1.926E-02	9.482E-03	1.497E-02	1.951E-03	-1.354E+00
EP - terrestrial	mol N eq	2.370E+01	2.109E-01	1.032E-01	1.554E-01	2.132E-02	-1.390E+01
WDP	m^3 depriv.	5.148E+02	1.288E-01	5.611E-01	1.361E+00	7.749E-01	-2.998E+02
ADP - F	MJ	2.431E+04	6.030E+01	1.234E+02	2.706E+02	1.778E+01	-1.459E+04
ADP - MM	kg Sb eq	1.035E-02	1.652E-06	2.370E-05	1.368E-05	1.062E-06	-1.047E-02
PERE	MJ	1.816E+03	3.692E-01	1.847E+00	1.030E+01	1.600E-01	-1.416E+03
PERM	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PERT	MJ	1.816E+03	3.692E-01	1.847E+00	1.030E+01	1.600E-01	-1.416E+03
PENRE	MJ	2.431E+04	6.030E+01	1.234E+02	2.706E+02	1.778E+01	-1.459E+04
PENRM	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PENRT	MJ	2.431E+04	6.030E+01	1.234E+02	2.706E+02	1.778E+01	-1.459E+04
SM	kg	2.069E+02	0.000E+00	5.001E-02	3.109E-02	4.381E-03	-2.483E+02
RSF	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NRSF	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
FW	m^3	1.745E+01	4.404E-03	2.289E-02	5.999E-02	1.851E-02	-1.598E+01
HW	Kg	7.305E-01	5.645E-04	3.522E-03	3.248E-03	2.599E-04	-4.524E-01
NHW	Kg	1.999E+02	4.069E-02	1.064E+01	3.088E-01	1.160E+02	-1.598E+02
RW	kg	2.003E-02	6.309E-06	3.396E-05	2.732E-04	2.594E-06	-1.088E-02
REUSE	Kg	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RECYCLE	Kg	6.404E+00	0.000E+00	5.642E-02	4.102E-02	7.118E-03	-6.813E+02
EN-REC	kg	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
EE-E	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
EE-T	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

PICKLED COIL

ID	U.o.M.	A1-A3	C1	C2	C3	C4	D
GWP - t	kg CO_2 eq	2.406E+03	4.631E+00	1.297E+01	1.642E+01	7.266E-01	-1.224E+03
GWP - fossil	kg CO_2 eq	2.402E+03	4.630E+00	1.296E+01	1.643E+01	7.259E-01	-1.221E+03
GWP - biogenic	kg CO_2 eq	3.435E+00	9.376E-04	8.678E-03	-7.017E-03	3.553E-04	-1.914E+00
GWP - luluc	kg CO_2 eq	1.099E+00	4.737E-04	4.370E-03	1.603E-03	4.126E-04	-7.760E-01
GWP - GHG	kg CO_2 eq	2.404E+03	4.631E+00	1.296E+01	1.643E+01	7.265E-01	-1.223E+03
ODP	kg CFC-11 eq	1.015E-05	6.878E-08	2.829E-07	3.481E-07	2.024E-08	-6.002E-06
POCP	kg NMVOC eq	7.433E+00	6.310E-02	6.415E-02	4.587E-02	7.693E-03	-4.118E+00
AP	mol H+ eq	9.375E+00	4.138E-02	4.188E-02	6.406E-02	5.084E-03	-5.285E+00
EP - freshwater	kg P eq	9.822E-01	1.493E-04	8.911E-04	3.762E-03	6.357E-05	-7.194E-01
EP - marine	kg N eq	2.271E+00	1.926E-02	1.413E-02	1.150E-02	1.951E-03	-1.200E+00
EP - terrestrial	mol N eq	2.348E+01	2.109E-01	1.537E-01	1.211E-01	2.132E-02	-1.232E+01
WDP	m^3 depriv.	5.864E+02	1.288E-01	7.451E-01	1.272E+00	7.749E-01	-2.657E+02
ADP - F	MJ	2.512E+04	6.030E+01	1.850E+02	2.328E+02	1.778E+01	-1.293E+04
ADP - MM	kg Sb eq	1.008E-02	1.652E-06	4.211E-05	1.113E-05	1.062E-06	-9.279E-03
PERE	MJ	2.011E+03	3.692E-01	2.883E+00	1.176E+01	1.600E-01	-1.254E+03
PERM	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PERT	MJ	2.011E+03	3.692E-01	2.883E+00	1.176E+01	1.600E-01	-1.254E+03
PENRE	MJ	2.512E+04	6.030E+01	1.850E+02	2.328E+02	1.778E+01	-1.293E+04
PENRM	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PENRT	MJ	2.512E+04	6.030E+01	1.850E+02	2.328E+02	1.778E+01	-1.293E+04
SM	kg	2.847E+02	0.000E+00	1.667E-02	2.738E-02	4.381E-03	-2.200E+02
RSF	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NRSF	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
FW	m^3	1.744E+01	4.404E-03	2.902E-02	5.020E-02	1.851E-02	-1.416E+01
HW	Kg	7.723E-01	5.645E-04	4.807E-03	3.039E-03	2.599E-04	-4.009E-01
NHW	Kg	2.066E+02	4.069E-02	1.044E+01	2.422E-01	1.160E+02	-1.416E+02
RW	kg	2.310E-02	6.309E-06	5.364E-05	1.025E-04	2.594E-06	-9.639E-03
REUSE	Kg	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RECYCLE	Kg	6.643E+00	0.000E+00	1.881E-02	3.633E-02	7.118E-03	-6.037E+02
EN-REC	kg	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
EE-E	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
EE-T	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

COLD ROLLED COIL (FULL HARD)

ID	U.o.M.	A1-A3	C1	C2	C3	C4	D
GWP - t	kg CO_2 eq	2.507E+03	4.631E+00	8.446E+00	1.923E+01	7.266E-01	-1.365E+03
GWP - fossil	kg CO_2 eq	2.504E+03	4.630E+00	8.438E+00	1.925E+01	7.259E-01	-1.362E+03
GWP - biogenic	kg CO_2 eq	2.086E+00	9.376E-04	5.158E-03	-1.458E-02	3.553E-04	-2.134E+00
GWP - luluc	kg CO_2 eq	1.117E+00	4.737E-04	3.030E-03	1.887E-03	4.126E-04	-8.655E-01
GWP - GHG	kg CO_2 eq	2.506E+03	4.631E+00	8.442E+00	1.925E+01	7.265E-01	-1.364E+03
ODP	kg CFC-11 eq	1.002E-05	6.878E-08	1.846E-07	3.419E-07	2.024E-08	-6.694E-06
POCP	kg NMVOC eq	7.745E+00	6.310E-02	4.425E-02	5.468E-02	7.693E-03	-4.593E+00
AP	mol H+ eq	9.886E+00	4.138E-02	2.792E-02	8.442E-02	5.084E-03	-5.894E+00
EP - freshwater	kg P eq	1.034E+00	1.493E-04	5.953E-04	5.795E-03	6.357E-05	-8.023E-01
EP - marine	kg N eq	2.417E+00	1.926E-02	9.482E-03	1.497E-02	1.951E-03	-1.338E+00
EP - terrestrial	mol N eq	2.478E+01	2.109E-01	1.032E-01	1.554E-01	2.132E-02	-1.374E+01
WDP	m^3 depriv.	5.537E+02	1.288E-01	5.611E-01	1.361E+00	7.749E-01	-2.963E+02
ADP - F	MJ	2.611E+04	6.030E+01	1.234E+02	2.706E+02	1.778E+01	-1.442E+04
ADP - MM	kg Sb eq	1.085E-02	1.652E-06	2.370E-05	1.368E-05	1.062E-06	-1.035E-02
PERE	MJ	1.968E+03	3.692E-01	1.847E+00	1.030E+01	1.600E-01	-1.399E+03
PERM	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PERT	MJ	1.968E+03	3.692E-01	1.847E+00	1.030E+01	1.600E-01	-1.399E+03
PENRE	MJ	2.612E+04	6.030E+01	1.234E+02	2.706E+02	1.778E+01	-1.442E+04
PENRM	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PENRT	MJ	2.612E+04	6.030E+01	1.234E+02	2.706E+02	1.778E+01	-1.442E+04
SM	kg	2.147E+02	0.000E+00	5.001E-02	3.109E-02	4.381E-03	-2.454E+02
RSF	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NRSF	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
FW	m^3	1.902E+01	4.404E-03	2.289E-02	5.999E-02	1.851E-02	-1.579E+01
HW	Kg	8.625E-01	5.645E-04	3.522E-03	3.248E-03	2.599E-04	-4.472E-01
NHW	Kg	2.098E+02	4.069E-02	1.064E+01	3.088E-01	1.160E+02	-1.579E+02
RW	kg	2.091E-02	6.309E-06	3.396E-05	2.732E-04	2.594E-06	-1.075E-02
REUSE	Kg	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RECYCLE	Kg	6.775E+00	0.000E+00	5.642E-02	4.102E-02	7.118E-03	-6.733E+02
EN-REC	kg	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
EE-E	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
EE-T	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

GALVANIZED COIL

ID	U.o.M.	A1-A3	C1	C2	C3	C4	D
GWP - t	kg CO_2 eq	2.739E+03	4.631E+00	8.446E+00	1.923E+01	7.266E-01	-1.358E+03
GWP - fossil	kg CO_2 eq	2.733E+03	4.630E+00	8.438E+00	1.925E+01	7.259E-01	-1.355E+03
GWP - biogenic	kg CO_2 eq	4.449E+00	9.376E-04	5.158E-03	-1.458E-02	3.553E-04	-2.124E+00
GWP - luluc	kg CO_2 eq	1.495E+00	4.737E-04	3.030E-03	1.887E-03	4.126E-04	-8.613E-01
GWP - GHG	kg CO_2 eq	2.736E+03	4.631E+00	8.442E+00	1.925E+01	7.265E-01	-1.357E+03
ODP	kg CFC-11 eq	1.576E-05	6.878E-08	1.846E-07	3.419E-07	2.024E-08	-6.661E-06
POCP	kg NMVOC eq	8.658E+00	6.310E-02	4.425E-02	5.468E-02	7.693E-03	-4.571E+00
AP	mol H+ eq	1.097E+01	4.138E-02	2.792E-02	8.442E-02	5.084E-03	-5.865E+00
EP - freshwater	kg P eq	1.155E+00	1.493E-04	5.953E-04	5.795E-03	6.357E-05	-7.984E-01
EP - marine	kg N eq	2.702E+00	1.926E-02	9.482E-03	1.497E-02	1.951E-03	-1.332E+00
EP - terrestrial	mol N eq	2.763E+01	2.109E-01	1.032E-01	1.554E-01	2.132E-02	-1.367E+01
WDP	m^3 depriv.	6.635E+02	1.288E-01	5.611E-01	1.361E+00	7.749E-01	-2.949E+02
ADP - F	MJ	2.934E+04	6.030E+01	1.234E+02	2.706E+02	1.778E+01	-1.435E+04
ADP - MM	kg Sb eq	6.329E-02	1.652E-06	2.370E-05	1.368E-05	1.062E-06	-1.030E-02
PERE	MJ	2.258E+03	3.692E-01	1.847E+00	1.030E+01	1.600E-01	-1.392E+03
PERM	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PERT	MJ	2.258E+03	3.692E-01	1.847E+00	1.030E+01	1.600E-01	-1.392E+03
PENRE	MJ	2.934E+04	6.030E+01	1.234E+02	2.706E+02	1.778E+01	-1.435E+04
PENRM	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PENRT	MJ	2.934E+04	6.030E+01	1.234E+02	2.706E+02	1.778E+01	-1.435E+04
SM	kg	2.180E+02	0.000E+00	5.001E-02	3.109E-02	4.381E-03	-2.442E+02
RSF	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NRSF	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
FW	m^3	2.986E+01	4.404E-03	2.289E-02	5.999E-02	1.851E-02	-1.572E+01
HW	Kg	2.440E+00	5.645E-04	3.522E-03	3.248E-03	2.599E-04	-4.449E-01
NHW	Kg	2.222E+02	4.069E-02	1.064E+01	3.088E-01	1.160E+02	-1.572E+02
RW	kg	2.621E-02	6.309E-06	3.396E-05	2.732E-04	2.594E-06	-1.070E-02
REUSE	Kg	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RECYCLE	Kg	7.124E+00	0.000E+00	5.642E-02	4.102E-02	7.118E-03	-6.700E+02
EN-REC	kg	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
EE-E	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
EE-T	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

PAINTED COIL

ID	U.o.M.	A1-A3	C1	C2	C3	C4	D
GzWP - t	kg CO_2 eq	3.062E+03	4.631E+00	8.446E+00	1.923E+01	7.266E-01	-1.333E+03
GWP - fossil	kg CO_2 eq	3.056E+03	4.630E+00	8.438E+00	1.925E+01	7.259E-01	-1.331E+03
GWP - biogenic	kg CO_2 eq	-4.822E+00	9.376E-04	5.158E-03	-1.458E-02	3.553E-04	-2.086E+00
GWP - luluc	kg CO_2 eq	1.053E+01	4.737E-04	3.030E-03	1.887E-03	4.126E-04	-8.457E-01
GWP - GHG	kg CO_2 eq	3.069E+03	4.631E+00	8.442E+00	1.925E+01	7.265E-01	-1.332E+03
ODP	kg CFC-11 eq	2.394E-05	6.878E-08	1.846E-07	3.419E-07	2.024E-08	-6.541E-06
POCP	kg NMVOC eq	9.798E+00	6.310E-02	4.425E-02	5.468E-02	7.693E-03	-4.488E+00
AP	mol H+ eq	1.250E+01	4.138E-02	2.792E-02	8.442E-02	5.084E-03	-5.759E+00
EP - freshwater	kg P eq	1.226E+00	1.493E-04	5.953E-04	5.795E-03	6.357E-05	-7.840E-01
EP - marine	kg N eq	3.034E+00	1.926E-02	9.482E-03	1.497E-02	1.951E-03	-1.308E+00
EP - terrestrial	mol N eq	3.001E+01	2.109E-01	1.032E-01	1.554E-01	2.132E-02	-1.342E+01
WDP	m^3 depriv.	7.860E+02	1.288E-01	5.611E-01	1.361E+00	7.749E-01	-2.896E+02
ADP - F	MJ	3.413E+04	6.030E+01	1.234E+02	2.706E+02	1.778E+01	-1.409E+04
ADP - MM	kg Sb eq	6.605E-02	1.652E-06	2.370E-05	1.368E-05	1.062E-06	-1.011E-02
PERE	MJ	2.709E+03	3.692E-01	1.847E+00	1.030E+01	1.600E-01	-1.367E+03
PERM	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PERT	MJ	2.709E+03	3.692E-01	1.847E+00	1.030E+01	1.600E-01	-1.367E+03
PENRE	MJ	3.415E+04	6.030E+01	1.234E+02	2.706E+02	1.778E+01	-1.409E+04
PENRM	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PENRT	MJ	3.415E+04	6.030E+01	1.234E+02	2.706E+02	1.778E+01	-1.409E+04
SM	kg	2.299E+02	0.000E+00	5.001E-02	3.109E-02	4.381E-03	-2.398E+02
RSF	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NRSF	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
FW	m^3	3.419E+01	4.404E-03	2.289E-02	5.999E-02	1.851E-02	-1.543E+01
HW	Kg	3.248E+00	5.645E-04	3.522E-03	3.248E-03	2.599E-04	-4.369E-01
NHW	Kg	2.636E+02	4.069E-02	1.064E+01	3.088E-01	1.160E+02	-1.543E+02
RW	kg	2.898E-02	6.309E-06	3.396E-05	2.732E-04	2.594E-06	-1.051E-02
REUSE	Kg	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RECYCLE	Kg	7.804E+00	0.000E+00	5.642E-02	4.102E-02	7.118E-03	-6.579E+02
EN-REC	kg	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
EE-E	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
EE-T	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

COLD COIL (COLD ROLLED. ANNEALED AND SKIN-PASSED)

ID	U.o.M.	A1-A3	C1	C2	C3	C4	D
GWP - t	kg CO_2 eq	2.667E+03	4.631E+00	8.446E+00	1.923E+01	7.266E-01	-1.349E+03
GWP - fossil	kg CO_2 eq	2.664E+03	4.630E+00	8.438E+00	1.925E+01	7.259E-01	-1.346E+03
GWP - biogenic	kg CO_2 eq	2.189E+00	9.376E-04	5.158E-03	-1.458E-02	3.553E-04	-2.110E+00
GWP - luluc	kg CO_2 eq	1.163E+00	4.737E-04	3.030E-03	1.887E-03	4.126E-04	-8.557E-01
GWP - GHG	kg CO_2 eq	2.666E+03	4.631E+00	8.442E+00	1.925E+01	7.265E-01	-1.348E+03
ODP	kg CFC-11 eq	1.353E-05	6.878E-08	1.846E-07	3.419E-07	2.024E-08	-6.618E-06
POCP	kg NMVOC eq	8.169E+00	6.310E-02	4.425E-02	5.468E-02	7.693E-03	-4.541E+00
AP	mol H+ eq	1.030E+01	4.138E-02	2.792E-02	8.442E-02	5.084E-03	-5.827E+00
EP - freshwater	kg P eq	1.072E+00	1.493E-04	5.953E-04	5.795E-03	6.357E-05	-7.932E-01
EP - marine	kg N eq	2.533E+00	1.926E-02	9.482E-03	1.497E-02	1.951E-03	-1.323E+00
EP - terrestrial	mol N eq	2.590E+01	2.109E-01	1.032E-01	1.554E-01	2.132E-02	-1.358E+01
WDP	m^3 depriv.	5.888E+02	1.288E-01	5.611E-01	1.361E+00	7.749E-01	-2.930E+02
ADP - F	MJ	2.811E+04	6.030E+01	1.234E+02	2.706E+02	1.778E+01	-1.426E+04
ADP - MM	kg Sb eq	1.130E-02	1.652E-06	2.370E-05	1.368E-05	1.062E-06	-1.023E-02
PERE	MJ	2.079E+03	3.692E-01	1.847E+00	1.030E+01	1.600E-01	-1.383E+03
PERM	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PERT	MJ	2.079E+03	3.692E-01	1.847E+00	1.030E+01	1.600E-01	-1.383E+03
PENRE	MJ	2.811E+04	6.030E+01	1.234E+02	2.706E+02	1.778E+01	-1.426E+04
PENRM	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PENRT	MJ	2.811E+04	6.030E+01	1.234E+02	2.706E+02	1.778E+01	-1.426E+04
SM	kg	2.223E+02	0.000E+00	5.001E-02	3.109E-02	4.381E-03	-2.426E+02
RSF	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NRSF	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
FW	m^3	2.032E+01	4.404E-03	2.289E-02	5.999E-02	1.851E-02	-1.561E+01
HW	Kg	8.980E-01	5.645E-04	3.522E-03	3.248E-03	2.599E-04	-4.421E-01
NHW	Kg	2.197E+02	4.069E-02	1.064E+01	3.088E-01	1.160E+02	-1.561E+02
RW	kg	2.181E-02	6.309E-06	3.396E-05	2.732E-04	2.594E-06	-1.063E-02
REUSE	Kg	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RECYCLE	Kg	7.176E+00	0.000E+00	5.642E-02	4.102E-02	7.118E-03	-6.657E+02
EN-REC	kg	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
EE-E	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
EE-T	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

BLACK COIL STRIP

ID	U.o.M.	A1-A3	C1	C2	C3	C4	D
GWP - t	kg CO_2 eq	2.456E+03	4.631E+00	1.297E+01	1.142E+01	7.266E-01	-1.287E+03
GWP - fossil	kg CO_2 eq	2.461E+03	4.630E+00	1.296E+01	1.143E+01	7.259E-01	-1.284E+03
GWP - biogenic	kg CO_2 eq	-6.423E+00	9.376E-04	8.678E-03	-5.939E-03	3.553E-04	-2.012E+00
GWP - luluc	kg CO_2 eq	1.138E+00	4.737E-04	4.370E-03	1.117E-03	4.126E-04	-8.161E-01
GWP - GHG	kg CO_2 eq	2.464E+03	4.631E+00	1.296E+01	1.143E+01	7.265E-01	-1.286E+03
ODP	kg CFC-11 eq	8.458E-06	6.878E-08	2.829E-07	2.312E-07	2.024E-08	-6.312E-06
POCP	kg NMVOC eq	7.685E+00	6.310E-02	6.415E-02	3.206E-02	7.693E-03	-4.331E+00
AP	mol H+ eq	9.789E+00	4.138E-02	4.188E-02	4.612E-02	5.084E-03	-5.557E+00
EP - freshwater	kg P eq	1.027E+00	1.493E-04	8.911E-04	2.848E-03	6.357E-05	-7.565E-01
EP - marine	kg N eq	2.383E+00	1.926E-02	1.413E-02	8.247E-03	1.951E-03	-1.262E+00
EP - terrestrial	mol N eq	2.452E+01	2.109E-01	1.537E-01	8.651E-02	2.132E-02	-1.295E+01
WDP	m^3 depriv.	5.558E+02	1.288E-01	7.451E-01	8.634E-01	7.749E-01	-2.794E+02
ADP - F	MJ	2.560E+04	6.030E+01	1.850E+02	1.616E+02	1.778E+01	-1.360E+04
ADP - MM	kg Sb eq	1.062E-02	1.652E-06	4.211E-05	7.849E-06	1.062E-06	-9.758E-03
PERE	MJ	2.132E+03	3.692E-01	2.883E+00	7.598E+00	1.600E-01	-1.319E+03
PERM	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PERT	MJ	2.132E+03	3.692E-01	2.883E+00	7.598E+00	1.600E-01	-1.319E+03
PENRE	MJ	2.560E+04	6.030E+01	1.850E+02	1.616E+02	1.778E+01	-1.360E+04
PENRM	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PENRT	MJ	2.560E+04	6.030E+01	1.850E+02	1.616E+02	1.778E+01	-1.360E+04
SM	kg	2.537E+02	0.000E+00	1.667E-02	1.888E-02	4.381E-03	-2.314E+02
RSF	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NRSF	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
FW	m^3	1.784E+01	4.404E-03	2.902E-02	3.511E-02	1.851E-02	-1.489E+01
HW	Kg	1.043E+00	5.645E-04	4.807E-03	2.062E-03	2.599E-04	-4.216E-01
NHW	Kg	2.135E+02	4.069E-02	1.044E+01	1.726E-01	1.160E+02	-1.489E+02
RW	kg	2.246E-02	6.309E-06	5.364E-05	9.680E-05	2.594E-06	-1.014E-02
REUSE	Kg	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RECYCLE	Kg	6.732E+00	0.000E+00	1.881E-02	2.501E-02	7.118E-03	-6.348E+02
EN-REC	kg	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
EE-E	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
EE-T	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

PICKLED COIL STRIP

ID	U.o.M.	A1-A3	C1	C2	C3	C4	D
GWP - t	kg CO_2 eq	2.570E+03	4.631E+00	1.297E+01	1.142E+01	7.266E-01	-1.272E+03
GWP - fossil	kg CO_2 eq	2.575E+03	4.630E+00	1.296E+01	1.143E+01	7.259E-01	-1.270E+03
GWP - biogenic	kg CO_2 eq	-6.271E+00	9.376E-04	8.678E-03	-5.939E-03	3.553E-04	-1.990E+00
GWP - luluc	kg CO_2 eq	1.181E+00	4.737E-04	4.370E-03	1.117E-03	4.126E-04	-8.070E-01
GWP - GHG	kg CO_2 eq	2.578E+03	4.631E+00	1.296E+01	1.143E+01	7.265E-01	-1.271E+03
ODP	kg CFC-11 eq	1.030E-05	6.878E-08	2.829E-07	2.312E-07	2.024E-08	-6.242E-06
POCP	kg NMVOC eq	8.003E+00	6.310E-02	6.415E-02	3.206E-02	7.693E-03	-4.283E+00
AP	mol H+ eq	1.017E+01	4.138E-02	4.188E-02	4.612E-02	5.084E-03	-5.496E+00
EP - freshwater	kg P eq	1.064E+00	1.493E-04	8.911E-04	2.848E-03	6.357E-05	-7.481E-01
EP - marine	kg N eq	2.476E+00	1.926E-02	1.413E-02	8.247E-03	1.951E-03	-1.248E+00
EP - terrestrial	mol N eq	2.546E+01	2.109E-01	1.537E-01	8.651E-02	2.132E-02	-1.281E+01
WDP	m^3 depriv.	5.950E+02	1.288E-01	7.451E-01	8.634E-01	7.749E-01	-2.763E+02
ADP - F	MJ	2.692E+04	6.030E+01	1.850E+02	1.616E+02	1.778E+01	-1.345E+04
ADP - MM	kg Sb eq	1.101E-02	1.652E-06	4.211E-05	7.849E-06	1.062E-06	-9.650E-03
PERE	MJ	2.213E+03	3.692E-01	2.883E+00	7.598E+00	1.600E-01	-1.305E+03
PERM	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PERT	MJ	2.213E+03	3.692E-01	2.883E+00	7.598E+00	1.600E-01	-1.305E+03
PENRE	MJ	2.693E+04	6.030E+01	1.850E+02	1.616E+02	1.778E+01	-1.345E+04
PENRM	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PENRT	MJ	2.693E+04	6.030E+01	1.850E+02	1.616E+02	1.778E+01	-1.345E+04
SM	kg	2.607E+02	0.000E+00	1.667E-02	1.888E-02	4.381E-03	-2.288E+02
RSF	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NRSF	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
FW	m^3	1.908E+01	4.404E-03	2.902E-02	3.511E-02	1.851E-02	-1.473E+01
HW	Kg	1.077E+00	5.645E-04	4.807E-03	2.062E-03	2.599E-04	-4.169E-01
NHW	Kg	2.219E+02	4.069E-02	1.044E+01	1.726E-01	1.160E+02	-1.473E+02
RW	kg	2.356E-02	6.309E-06	5.364E-05	9.680E-05	2.594E-06	-1.002E-02
REUSE	Kg	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RECYCLE	Kg	7.009E+00	0.000E+00	1.881E-02	2.501E-02	7.118E-03	-6.278E+02
EN-REC	kg	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
EE-E	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
EE-T	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

COLD-ROLLED COIL STRIP (FULL HARD)

ID	U.o.M.	A1-A3	C1	C2	C3	C4	D
GWP - t	kg CO2 eq	2.598E+03	4.631E+00	8.446E+00	1.923E+01	7.266E-01	-1.348E+03
GWP - fossil	kg CO2 eq	2.602E+03	4.630E+00	8.438E+00	1.925E+01	7.259E-01	-1.345E+03
GWP - biogenic	kg CO2 eq	-4.536E+00	9.376E-04	5.158E-03	-1.458E-02	3.553E-04	-2.108E+00
GWP - luluc	kg CO2 eq	1.166E+00	4.737E-04	3.030E-03	1.887E-03	4.126E-04	-8.549E-01
GWP - GHG	kg CO2 eq	2.605E+03	4.631E+00	8.442E+00	1.925E+01	7.265E-01	-1.347E+03
ODP	kg CFC-11 eq	1.066E-05	6.878E-08	1.846E-07	3.419E-07	2.024E-08	-6.612E-06
POCP	kg NMVOC eq	8.054E+00	6.310E-02	4.425E-02	5.468E-02	7.693E-03	-4.537E+00
AP	mol H+ eq	1.026E+01	4.138E-02	2.792E-02	8.442E-02	5.084E-03	-5.822E+00
EP - freshwater	kg P eq	1.072E+00	1.493E-04	5.953E-04	5.795E-03	6.357E-05	-7.925E-01
EP - marine	kg N eq	2.510E+00	1.926E-02	9.482E-03	1.497E-02	1.951E-03	-1.322E+00
EP - terrestrial	mol N eq	2.573E+01	2.109E-01	1.032E-01	1.554E-01	2.132E-02	-1.357E+01
WDP	m3 depriv.	5.757E+02	1.288E-01	5.611E-01	1.361E+00	7.749E-01	-2.927E+02
ADP - F	MJ	2.719E+04	6.030E+01	1.234E+02	2.706E+02	1.778E+01	-1.424E+04
ADP - MM	kg Sb eq	1.127E-02	1.652E-06	2.370E-05	1.368E-05	1.062E-06	-1.022E-02
PERE	MJ	2.150E+03	3.692E-01	1.847E+00	1.030E+01	1.600E-01	-1.382E+03
PERM	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PERT	MJ	2.150E+03	3.692E-01	1.847E+00	1.030E+01	1.600E-01	-1.382E+03
PENRE	MJ	2.719E+04	6.030E+01	1.234E+02	2.706E+02	1.778E+01	-1.425E+04
PENRM	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PENRT	MJ	2.719E+04	6.030E+01	1.234E+02	2.706E+02	1.778E+01	-1.425E+04
SM	kg	2.229E+02	0.000E+00	5.001E-02	3.109E-02	4.381E-03	-2.424E+02
RSF	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NRSF	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
FW	m3	1.979E+01	4.404E-03	2.289E-02	5.999E-02	1.851E-02	-1.560E+01
HW	Kg	9.868E-01	5.645E-04	3.522E-03	3.248E-03	2.599E-04	-4.417E-01
NHW	Kg	2.188E+02	4.069E-02	1.064E+01	3.088E-01	1.160E+02	-1.560E+02
RW	kg	2.178E-02	6.309E-06	3.396E-05	2.732E-04	2.594E-06	-1.062E-02
REUSE	Kg	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RECYCLE	Kg	7.024E+00	0.000E+00	5.642E-02	4.102E-02	7.118E-03	-6.651E+02
EN-REC	kg	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
EE-E	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
EE-T	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

GALVANIZED COIL STRIP

ID	U.o.M.	A1-A3	C1	C2	C3	C4	D
GWP - t	kg CO_2 eq	2.983E+03	4.631E+00	1.354E+01	1.607E+01	7.266E-01	-1.332E+03
GWP - fossil	kg CO_2 eq	2.985E+03	4.630E+00	1.352E+01	1.608E+01	7.259E-01	-1.329E+03
GWP - biogenic	kg CO_2 eq	-6.061E+00	9.376E-04	9.118E-03	-6.072E-03	3.553E-04	-2.083E+00
GWP - luluc	kg CO_2 eq	3.950E+00	4.737E-04	4.537E-03	1.568E-03	4.126E-04	-8.447E-01
GWP - GHG	kg CO_2 eq	2.991E+03	4.631E+00	1.353E+01	1.608 E+01	7.265E-01	-1.331E+03
ODP	kg CFC-11 eq	1.927E-05	6.878E-08	2.952E-07	3.489E-07	2.024E-08	-6.533E-06
POCP	kg NMVOC eq	9.515E+00	6.310E-02	6.664E-02	4.477E-02	7.693E-03	-4.483E+00
AP	mol H+ eq	1.205E+01	4.138E-02	4.362E-02	6.152E-02	5.084E-03	-5.752E+00
EP - freshwater	kg P eq	1.244E+00	1.493E-04	9.281E-04	3.508E-03	6.357E-05	-7.830E-01
EP - marine	kg N eq	2.957E+00	1.926E-02	1.471E-02	1.106E-02	1.951E-03	-1.306E+00
EP - terrestrial	mol N eq	2.996E+01	2.109E-01	1.600E-01	1.169E-01	2.132E-02	-1.341E+01
WDP	m^3 depriv.	7.356E+02	1.288E-01	7.681E-01	1.261E+00	7.749E-01	-2.892E+02
ADP - F	MJ	3.252E+04	6.030E+01	1.927E+02	2.281E+02	1.778E+01	-1.407E+04
ADP - MM	kg Sb eq	6.719E-02	1.652E-06	4.441E-05	1.081E-05	1.062E-06	-1.010E-02
PERE	MJ	2.661E+03	3.692E-01	3.012E+00	1.194E+01	1.600E-01	-1.365E+03
PERM	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PERT	MJ	2.661E+03	3.692E-01	3.012E+00	1.194E+01	1.600E-01	-1.365E+03
PENRE	MJ	3.253E+04	6.030E+01	1.927E+02	2.281E+02	1.778E+01	-1.408E+04
PENRM	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PENRT	MJ	3.253E+04	6.030E+01	1.927E+02	2.281E+02	1.778E+01	-1.408E+04
SM	kg	2.318E+02	0.000E+00	1.250E-02	2.692E-02	4.381E-03	-2.395E+02
RSF	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NRSF	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
FW	m^3	3.273E+01	4.404E-03	2.978E-02	4.897E-02	1.851E-02	-1.541E+01
HW	Kg	3.046E+00	5.645E-04	4.967E-03	3.013E-03	2.599E-04	-4.364E-01
NHW	Kg	2.514E+02	4.069E-02	1.042E+01	2.338E-01	1.160E+02	-1.541E+02
RW	kg	2.908E-02	6.309E-06	5.610E-05	8.119E-05	2.594E-06	-1.049E-02
REUSE	Kg	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RECYCLE	Kg	7.702E+00	0.000E+00	1.410E-02	3.574E-02	7.118E-03	-6.571E+02
EN-REC	kg	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
EE-E	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
EE-T	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

PAINTED COIL STRIP

ID	U.o.M.	A1-A3	C1	C2	C3	C4	D
GWP - t	kg CO_2 eq	3.148E+03	4.631E+00	8.446E+00	1.923E+01	7.266E-01	-1.325E+03
GWP - fossil	kg CO_2 eq	3.150E+03	4.630E+00	8.438E+00	1.925E+01	7.259E-01	-1.322E+03
GWP - biogenic	kg CO_2 eq	-1.196E+01	9.376E-04	5.158E-03	-1.458E-02	3.553E-04	-2.073E+00
GWP - luluc	kg CO_2 eq	1.085E+01	4.737E-04	3.030E-03	1.887E-03	4.126E-04	-8.406E-01
GWP - GHG	kg CO_2 eq	3.163E+03	4.631E+00	8.442E+00	1.925E+01	7.265E-01	-1.324E+03
ODP	kg CFC-11 eq	2.471E-05	6.878E-08	1.846E-07	3.419E-07	2.024E-08	-6.501E-06
POCP	kg NMVOC eq	1.009E+01	6.310E-02	4.425E-02	5.468E-02	7.693E-03	-4.461E+00
AP	mol H+ eq	1.287E+01	4.138E-02	2.792E-02	8.442E-02	5.084E-03	-5.724E+00
EP - freshwater	kg P eq	1.259E+00	1.493E-04	5.953E-04	5.795E-03	6.357E-05	-7.792E-01
EP - marine	kg N eq	3.115E+00	1.926E-02	9.482E-03	1.497E-02	1.951E-03	-1.300E+00
EP - terrestrial	mol N eq	3.087E+01	2.109E-01	1.032E-01	1.554E-01	2.132E-02	-1.334E+01
WDP	m^3 depriv.	8.065E+02	1.288E-01	5.611E-01	1.361E+00	7.749E-01	-2.878E+02
ADP - F	MJ	3.518E+04	6.030E+01	1.234E+02	2.706E+02	1.778E+01	-1.401E+04
ADP - MM	kg Sb eq	6.822E-02	1.652E-06	2.370E-05	1.368E-05	1.062E-06	-1.005E-02
PERE	MJ	2.855E+03	3.692E-01	1.847E+00	1.030E+01	1.600E-01	-1.359E+03
PERM	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PERT	MJ	2.855E+03	3.692E-01	1.847E+00	1.030E+01	1.600E-01	-1.359E+03
PENRE	MJ	3.521E+04	6.030E+01	1.234E+02	2.706E+02	1.778E+01	-1.401E+04
PENRM	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PENRT	MJ	3.521E+04	6.030E+01	1.234E+02	2.706E+02	1.778E+01	-1.401E+04
SM	kg	2.341E+02	0.000E+00	5.001E-02	3.109E-02	4.381E-03	-2.383E+02
RSF	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NRSF	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
FW	m^3	3.487E+01	4.404E-03	2.289E-02	5.999E-02	1.851E-02	-1.534E+01
HW	Kg	2.899E+00	5.645E-04	3.522E-03	3.248E-03	2.599E-04	-4.343E-01
NHW	Kg	2.699E+02	4.069E-02	1.064E+01	3.088E-01	1.160E+02	-1.534E+02
RW	kg	2.961E-02	6.309E-06	3.396E-05	2.732E-04	2.594E-06	-1.044E-02
REUSE	Kg	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RECYCLE	Kg	8.075E+00	0.000E+00	5.642E-02	4.102E-02	7.118E-03	-6.539E+02
EN-REC	kg	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
EE-E	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
EE-T	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

COLD COIL STRIP (COLD ROLLED. ANNEALED AND SKIN-PASSED)

ID	U.o.M.	A1-A3	C1	C2	C3	C4	D
GWP - t	kg CO_2 eq	2.940E+03	4.631E+00	1.354E+01	1.607E+01	7.266E-01	-1.315E+03
GWP - fossil	kg CO_2 eq	2.947E+03	4.630E+00	1.352E+01	1.608E+01	7.259E-01	-1.312E+03
GWP - biogenic	kg CO_2 eq	-8.079E+00	9.376E-04	9.118E-03	-6.072E-03	3.553E-04	-2.057E+00
GWP - luluc	kg CO_2 eq	1.347E+00	4.737E-04	4.537E-03	1.568E-03	4.126E-04	-8.342E-01
GWP - GHG	kg CO_2 eq	2.950E+03	4.631E+00	1.353E+01	1.608E+01	7.265E-01	-1.314E+03
ODP	kg CFC-11 eq	1.546E-05	6.878E-08	2.952E-07	3.489E-07	2.024E-08	-6.452E-06
POCP	kg NMVOC eq	9.150E+00	6.310E-02	6.664E-02	4.477E-02	7.693E-03	-4.427E+00
AP	mol H+ eq	1.149E+01	4.138E-02	4.362E-02	6.152E-02	5.084E-03	-5.681E+00
EP - freshwater	kg P eq	1.192E+00	1.493E-04	9.281E-04	3.508E-03	6.357E-05	-7.733E-01
EP - marine	kg N eq	2.837E+00	1.926E-02	1.471E-02	1.106E-02	1.951E-03	-1.290E+00
EP - terrestrial	mol N eq	2.882E+01	2.109E-01	1.600E-01	1.169E-01	2.132E-02	-1.324E+01
WDP	m^3 depriv.	6.810E+02	1.288E-01	7.681E-01	1.261E+00	7.749E-01	-2.856E+02
ADP - F	MJ	3.141E+04	6.030E+01	1.927E+02	2.281E+02	1.778E+01	-1.390E+04
ADP - MM	kg Sb eq	1.241E-02	1.652E-06	4.441E-05	1.081E-05	1.062E-06	-9.974E-03
PERE	MJ	2.482E+03	3.692E-01	3.012E+00	1.194E+01	1.600E-01	-1.348E+03
PERM	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PERT	MJ	2.482E+03	3.692E-01	3.012E+00	1.194E+01	1.600E-01	-1.348E+03
PENRE	MJ	3.142E+04	6.030E+01	1.927E+02	2.281E+02	1.778E+01	-1.390E+04
PENRM	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PENRT	MJ	3.142E+04	6.030E+01	1.927E+02	2.281E+02	1.778E+01	-1.390E+04
SM	kg	2.399E+02	0.000E+00	1.250E-02	2.692E-02	4.381E-03	-2.365E+02
RSF	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NRSF	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
FW	m^3	2.272E+01	4.403E-03	2.977E-02	4.893E-02	1.851E-02	-1.522E+01
HW	Kg	1.236E+00	5.645E-04	4.967E-03	3.013E-03	2.599E-04	-4.310E-01
NHW	Kg	2.457E+02	4.069E-02	1.042E+01	2.338E-01	1.160E+02	-1.522E+02
RW	kg	2.619E-02	6.309E-06	5.610E-05	8.119E-05	2.594E-06	-1.036E-02
REUSE	Kg	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RECYCLE	Kg	7.851E+00	0.000E+00	1.410E-02	3.574E-02	7.118E-03	-6.489E+02
EN-REC	kg	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
EE-E	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
EE-T	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

BLACK SHEET METAL

ID	U.o.M.	A1-A3	C1	C2	C3	C4	D
GWP - t	kg CO_2 eq	2.404E+03	4.631E+00	1.184E+01	1.713E+01	7.266E-01	-1.252E+03
GWP - fossil	kg CO_2 eq	2.411E+03	4.630E+00	1.183E+01	1.713E+01	7.259E-01	-1.249E+03
GWP - biogenic	kg CO_2 eq	-7.976E+00	9.376E-04	7.798E-03	-8.907E-03	3.553E-04	-1.958E+00
GWP - luluc	kg CO_2 eq	1.120E+00	4.737E-04	4.035E-03	1.674E-03	4.126E-04	-7.939E-01
GWP - GHG	kg CO_2 eq	2.414E+03	4.631E+00	1.183E+01	1.714E+01	7.265E-01	-1.251E+03
ODP	kg CFC-11 eq	8.444E-06	6.878E-08	2.583E-07	3.466E-07	2.024E-08	-6.141E-06
POCP	kg NMVOC eq	7.515E+00	6.310E-02	5.917E-02	4.808E-02	7.693E-03	-4.213E+00
AP	mol H+ eq	9.524E+00	4.138E-02	3.839E-02	6.915E-02	5.084E-03	-5.407E+00
EP - freshwater	kg P eq	1.001E+00	1.493E-04	8.172E-04	4.271E-03	6.357E-05	-7.360E-01
EP - marine	kg N eq	2.317E+00	1.926E-02	1.297E-02	1.237E-02	1.951E-03	-1.228E+00
EP - terrestrial	mol N eq	2.388E+01	2.109E-01	1.411E-01	1.297E-01	2.132E-02	-1.260E+01
WDP	m^3 depriv.	5.554E+02	1.288E-01	6.991E-01	1.294E+00	7.749E-01	-2.718E+02
ADP - F	MJ	2.509E+04	6.030E+01	1.696E+02	2.423E+02	1.778E+01	-1.323E+04
ADP - MM	kg Sb eq	1.032E-02	1.652E-06	3.751E-05	1.177E-05	1.062E-06	-9.493E-03
PERE	MJ	2.170E+03	3.692E-01	2.624E+00	1.139E+01	1.600E-01	-1.283E+03
PERM	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PERT	MJ	2.170E+03	3.692E-01	2.624E+00	1.139E+01	1.600E-01	-1.283E+03
PENRE	MJ	2.509E+04	6.030E+01	1.696E+02	2.423E+02	1.778E+01	-1.323E+04
PENRM	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PENRT	MJ	2.509E+04	6.030E+01	1.696E+02	2.423E+02	1.778E+01	-1.323E+04
SM	kg	2.707E+02	0.000E+00	2.500E-02	2.831E-02	4.381E-03	-2.251E+02
RSF	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NRSF	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
FW	m^3	1.735E+01	4.404E-03	2.748E-02	5.265E-02	1.851E-02	-1.449E+01
HW	Kg	1.217E+00	5.645E-04	4.485E-03	3.091E-03	2.599E-04	-4.102E-01
NHW	Kg	2.097E+02	4.069E-02	1.049E+01	2.588E-01	1.160E+02	-1.449E+02
RW	kg	2.253E-02	6.309E-06	4.872E-05	1.452E-04	2.594E-06	-9.862E-03
REUSE	Kg	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RECYCLE	Kg	6.624E+00	0.000E+00	2.821E-02	3.750E-02	7.118E-03	-6.176E+02
EN-REC	kg	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
EE-E	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
EE-T	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

RIBBED - STRIATED SHEET

ID	U.o.M.	A1-A3	C1	C2	C3	C4	D
GWP - t	kg CO_2 eq	2.488E+03	4.631E+00	1.523E+01	1.502E+01	7.266E-01	-1.365E+03
GWP - fossil	kg CO_2 eq	2.497E+03	4.630E+00	1.522E+01	1.502E+01	7.259E-01	-1.362E+03
GWP - biogenic	kg CO_2 eq	-9.293E+00	9.376E-04	1.044E-02	-3.237E-03	3.553E-04	-2.135E+00
GWP - luluc	kg CO_2 eq	1.162E+00	4.737E-04	5.040E-03	1.462E-03	4.126E-04	-8.658E-01
GWP - GHG	kg CO_2 eq	2.500E+03	4.631E+00	1.523E+01	1.502E+01	7.265E-01	-1.364E+03
ODP	kg CFC-11 eq	8.253E-06	6.878E-08	3.320E-07	3.512E-07	2.024E-08	-6.696E-06
POCP	kg NMVOC eq	7.840E+00	6.310E-02	7.410E-02	4.147E-02	7.693E-03	-4.595E+00
AP	mol H+ eq	1.008E+01	4.138E-02	4.886E-02	5.389E-02	5.084E-03	-5.896E+00
EP - freshwater	kg P eq	1.058E+00	1.493E-04	1.039E-03	2.746E-03	6.357E-05	-8.025E-01
EP - marine	kg N eq	2.463E+00	1.926E-02	1.645E-02	9.757E-03	1.951E-03	-1.339E+00
EP - terrestrial	mol N eq	2.521E+01	2.109E-01	1.789E-01	1.040E-01	2.132E-02	-1.374E+01
WDP	m^3 depriv.	5.469E+02	1.288E-01	8.371E-01	1.228E+00	7.749E-01	-2.964E+02
ADP - F	MJ	2.596E+04	6.030E+01	2.158E+02	2.140E+02	1.778E+01	-1.443E+04
ADP - MM	kg Sb eq	1.100E-02	1.652E-06	5.132E-05	9.856E-06	1.062E-06	-1.035E-02
PERE	MJ	2.125E+03	3.692E-01	3.400E+00	1.249E+01	1.600E-01	-1.400E+03
PERM	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PERT	MJ	2.125E+03	3.692E-01	3.400E+00	1.249E+01	1.600E-01	-1.400E+03
PENRE	MJ	2.596E+04	6.030E+01	2.158E+02	2.140E+02	1.778E+01	-1.443E+04
PENRM	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PENRT	MJ	2.596E+04	6.030E+01	2.158E+02	2.140E+02	1.778E+01	-1.443E+04
SM	kg	2.156E+02	0.000E+00	0.000E+00	2.553E-02	4.381E-03	-2.455E+02
RSF	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NRSF	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
FW	m^3	1.871E+01	4.404E-03	3.208E-02	4.530E-02	1.851E-02	-1.580E+01
HW	Kg	1.264E+00	5.645E-04	5.449E-03	2.934E-03	2.599E-04	-4.473E-01
NHW	Kg	2.182E+02	4.069E-02	1.034E+01	2.089E-01	1.160E+02	-1.580E+02
RW	kg	2.211E-02	6.309E-06	6.348E-05	1.719E-05	2.594E-06	-1.075E-02
REUSE	Kg	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RECYCLE	Kg	6.728E+00	0.000E+00	0.000E+00	3.398E-02	7.118E-03	-6.735E+02
EN-REC	kg	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
EE-E	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
EE-T	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

PICKLED SHEET

ID	U.o.M.	A1-A3	C1	C2	C3	C4	D
GWP - t	kg CO_2 eq	2.559E+03	4.631E+00	1.297E+01	1.642E+01	7.266E-01	-1.191E+03
GWP - fossil	kg CO_2 eq	2.565E+03	4.630E+00	1.296E+01	1.643E+01	7.259E-01	-1.188E+03
GWP - biogenic	kg CO_2 eq	-7.447E+00	9.376E-04	8.678E-03	-7.017E-03	3.553E-04	-1.862E+00
GWP - luluc	kg CO_2 eq	1.183E+00	4.737E-04	4.370E-03	1.603E-03	4.126E-04	-7.552E-01
GWP - GHG	kg CO_2 eq	2.568E+03	4.631E+00	1.296E+01	1.643E+01	7.265E-01	-1.190E+03
ODP	kg CFC-11 eq	1.120E-05	6.878E-08	2.829E-07	3.481E-07	2.024E-08	-5.841E-06
POCP	kg NMVOC eq	7.950E+00	6.310E-02	6.415E-02	4.587E-02	7.693E-03	-4.008E+00
AP	mol H+ eq	1.001E+01	4.138E-02	4.188E-02	6.406E-02	5.084E-03	-5.143E+00
EP - freshwater	kg P eq	1.047E+00	1.493E-04	8.911E-04	3.762E-03	6.357E-05	-7.001E-01
EP - marine	kg N eq	2.430E+00	1.926E-02	1.413E-02	1.150E-02	1.951E-03	-1.168E+00
EP - terrestrial	mol N eq	2.507E+01	2.109E-01	1.537E-01	1.211E-01	2.132E-02	-1.199E+01
WDP	m^3 depriv.	6.239E+02	1.288E-01	7.451E-01	1.272E+00	7.749E-01	-2.586E+02
ADP - F	MJ	2.691E+04	6.030E+01	1.850E+02	2.328E+02	1.778E+01	-1.258E+04
ADP - MM	kg Sb eq	1.076E-02	1.652E-06	4.211E-05	1.113E-05	1.062E-06	-9.030E-03
PERE	MJ	2.321E+03	3.692E-01	2.883E+00	1.176E+01	1.600E-01	-1.221E+03
PERM	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PERT	MJ	2.321E+03	3.692E-01	2.883E+00	1.176E+01	1.600E-01	-1.221E+03
PENRE	MJ	2.692E+04	6.030E+01	1.850E+02	2.328E+02	1.778E+01	-1.258E+04
PENRM	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PENRT	MJ	2.692E+04	6.030E+01	1.850E+02	2.328E+02	1.778E+01	-1.258E+04
SM	kg	3.009E+02	0.000E+00	1.667E-02	2.738E-02	4.381E-03	-2.141E+02
RSF	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NRSF	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
FW	m^3	1.880E+01	4.402E-03	2.901E-02	5.014E-02	1.851E-02	-1.378E+01
HW	Kg	1.272E+00	5.645E-04	4.807E-03	3.039E-03	2.599E-04	-3.902E-01
NHW	Kg	2.224E+02	4.069E-02	1.044E+01	2.422E-01	1.160E+02	-1.378E+02
RW	kg	2.488E-02	6.309E-06	5.364E-05	1.025E-04	2.594E-06	-9.381E-03
REUSE	Kg	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RECYCLE	Kg	7.035E+00	0.000E+00	1.881E-02	3.633E-02	7.118E-03	-5.875E+02
EN-REC	kg	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
EE-E	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
EE-T	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

COLD COIL (COLD ROLLED. ANNEALED AND SKIN-PASSED)

ID	U.o.M.	A1-A3	C1	C2	C3	C4	D
GWP - t	kg CO_2 eq	2.605E+03	4.631E+00	8.446E+00	1.923E+01	7.266E-01	-1.343E+03
GWP - fossil	kg CO_2 eq	2.612E+03	4.630E+00	8.438E+00	1.925E+01	7.259E-01	-1.340E+03
GWP - biogenic	kg CO_2 eq	-8.675E+00	9.376E-04	5.158E-03	-1.458E-02	3.553E-04	-2.101E+00
GWP - luluc	kg CO_2 eq	1.177E+00	4.737E-04	3.030E-03	1.887E-03	4.126E-04	-8.519E-01
GWP - GHG	kg CO_2 eq	2.615E+03	4.631E+00	8.442E+00	1.925E+01	7.265E-01	-1.342E+03
ODP	kg CFC-11 eq	1.079E-05	6.878E-08	1.846E-07	3.419E-07	2.024E-08	-6.589E-06
POCP	kg NMVOC eq	8.093E+00	6.310E-02	4.425E-02	5.468E-02	7.693E-03	-4.521E+00
AP	mol H+ eq	1.030E+01	4.138E-02	2.792E-02	8.442E-02	5.084E-03	-5.802E+00
EP - freshwater	kg P eq	1.076E+00	1.493E-04	5.953E-04	5.795E-03	6.357E-05	-7.897E-01
EP - marine	kg N eq	2.524E+00	1.926E-02	9.482E-03	1.497E-02	1.951E-03	-1.317E+00
EP - terrestrial	mol N eq	2.584E+01	2.109E-01	1.032E-01	1.554E-01	2.132E-02	-1.352E+01
WDP	m^3 depriv.	5.799E+02	1.288E-01	5.611E-01	1.361E+00	7.749E-01	-2.917E+02
ADP - F	MJ	2.732E+04	6.030E+01	1.234E+02	2.706E+02	1.778E+01	-1.420E+04
ADP - MM	kg Sb eq	1.133E-02	1.652E-06	2.370E-05	1.368E-05	1.062E-06	-1.019E-02
PERE	MJ	2.233E+03	3.692E-01	1.847E+00	1.030E+01	1.600E-01	-1.377E+03
PERM	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PERT	MJ	2.233E+03	3.692E-01	1.847E+00	1.030E+01	1.600E-01	-1.377E+03
PENRE	MJ	2.732E+04	6.030E+01	1.234E+02	2.706E+02	1.778E+01	-1.420E+04
PENRM	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PENRT	MJ	2.732E+04	6.030E+01	1.234E+02	2.706E+02	1.778E+01	-1.420E+04
SM	kg	2.253E+02	0.000E+00	5.001E-02	3.109E-02	4.381E-03	-2.415E+02
RSF	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NRSF	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
FW	m^3	2.002E+01	4.404E-03	2.289E-02	5.999E-02	1.851E-02	-1.555E+01
HW	Kg	1.251E+00	5.645E-04	3.522E-03	3.248E-03	2.599E-04	-4.401E-01
NHW	Kg	2.210E+02	4.069E-02	1.064E+01	3.088E-01	1.160E+02	-1.555E+02
RW	kg	2.200E-02	6.309E-06	3.396E-05	2.732E-04	2.594E-06	-1.058E-02
REUSE	Kg	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RECYCLE	Kg	7.031E+00	0.000E+00	5.642E-02	4.102E-02	7.118E-03	-6.627E+02
EN-REC	kg	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
EE-E	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
EE-T	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

COLD COIL SHEET (COLD ROLLED. ANNEALED AND SKIN PASS)

ID	U.o.M.	A1-A3	C1	C2	C3	C4	D
GWP - t	kg CO_2 eq	2.856E+03	4.631E+00	1.184E+01	1.713E+01	7.266E-01	-1.321E+03
GWP - fossil	kg CO_2 eq	2.863E+03	4.630E+00	1.183E+01	1.713E+01	7.259E-01	-1.318E+03
GWP - biogenic	kg CO_2 eq	-8.623E+00	9.376E-04	7.798E-03	-8.907E-03	3.553E-04	-2.066E+00
GWP - luluc	kg CO_2 eq	1.272E+00	4.737E-04	4.035E-03	1.674E-03	4.126E-04	-8.378E-01
GWP - GHG	kg CO_2 eq	2.867E+03	4.631E+00	1.183E+01	1.714E+01	7.265E-01	-1.320E+03
ODP	kg CFC-11 eq	1.505E-05	6.878E-08	2.583E-07	3.466E-07	2.024E-08	-6.479E-06
POCP	kg NMVOC eq	8.824E+00	6.310E-02	5.917E-02	4.808E-02	7.693E-03	-4.446E+00
AP	mol H+ eq	1.110E+01	4.138E-02	3.839E-02	6.915E-02	5.084E-03	-5.705E+00
EP - freshwater	kg P eq	1.155E+00	1.493E-04	8.172E-04	4.271E-03	6.357E-05	-7.766E-01
EP - marine	kg N eq	2.730E+00	1.926E-02	1.297E-02	1.237E-02	1.951E-03	-1.296E+00
EP - terrestrial	mol N eq	2.789E+01	2.109E-01	1.411E-01	1.297E-01	2.132E-02	-1.330E+01
WDP	m^3 depriv.	6.353E+02	1.288E-01	6.991E-01	1.294E+00	7.749E-01	-2.868E+02
ADP - F	MJ	3.036E+04	6.030E+01	1.696E+02	2.423E+02	1.778E+01	-1.396E+04
ADP - MM	kg Sb eq	1.222E-02	1.652E-06	3.751E-05	1.177E-05	1.062E-06	-1.002E-02
PERE	MJ	2.429E+03	3.692E-01	2.624E+00	1.139E+01	1.600E-01	-1.354E+03
PERM	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PERT	MJ	2.429E+03	3.692E-01	2.624E+00	1.139E+01	1.600E-01	-1.354E+03
PENRE	MJ	3.036E+04	6.030E+01	1.696E+02	2.423E+02	1.778E+01	-1.396E+04
PENRM	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PENRT	MJ	3.036E+04	6.030E+01	1.696E+02	2.423E+02	1.778E+01	-1.396E+04
SM	kg	2.369E+02	0.000E+00	2.500E-02	2.831E-02	4.381E-03	-2.375E+02
RSF	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NRSF	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
FW	m^3	2.196E+01	4.404E-03	2.748E-02	5.265E-02	1.851E-02	-1.529E+01
HW	Kg	1.383E+00	5.645E-04	4.485E-03	3.091E-03	2.599E-04	-4.328E-01
NHW	Kg	2.400E+02	4.069E-02	1.049E+01	2.588E-01	1.160E+02	-1.529E+02
RW	kg	2.407E-02	6.309E-06	4.872E-05	1.452E-04	2.594E-06	-1.041E-02
REUSE	Kg	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RECYCLE	Kg	7.659E+00	0.000E+00	2.821E-02	3.750E-02	7.118E-03	-6.517E+02
EN-REC	kg	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
EE-E	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
EE-T	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

GALVANIZED SHEET METAL

ID	U.o.M.	A1-A3	C1	C2	C3	C4	D
GWP - t	kg CO_2 eq	2.919E+03	4.631E+00	1.297E+01	1.642E+01	7.266E-01	-1.333E+03
GWP - fossil	kg CO_2 eq	2.924E+03	4.630E+00	1.296E+01	1.643E+01	7.259E-01	-1.330E+03
GWP - biogenic	kg CO_2 eq	-6.191E+00	9.376E-04	8.678E-03	-7.017E-03	3.553E-04	-2.085E+00
GWP - luluc	kg CO_2 eq	1.615E+00	4.737E-04	4.370E-03	1.603E-03	4.126E-04	-8.454E-01
GWP - GHG	kg CO_2 eq	2.928E+03	4.631E+00	1.296E+01	1.643E+01	7.265E-01	-1.332E+03
ODP	kg CFC-11 eq	1.732E-05	6.878E-08	2.829E-07	3.481E-07	2.024E-08	-6.539E-06
POCP	kg NMVOC eq	9.304E+00	6.310E-02	6.415E-02	4.587E-02	7.693E-03	-4.486E+00
AP	mol H+ eq	1.176E+01	4.138E-02	4.188E-02	6.406E-02	5.084E-03	-5.757E+00
EP - freshwater	kg P eq	1.237E+00	1.493E-04	8.911E-04	3.762E-03	6.357E-05	-7.837E-01
EP - marine	kg N eq	2.896E+00	1.926E-02	1.413E-02	1.150E-02	1.951E-03	-1.307E+00
EP - terrestrial	mol N eq	2.960E+01	2.109E-01	1.537E-01	1.211E-01	2.132E-02	-1.342E+01
WDP	m^3 depriv.	7.111E+02	1.288E-01	7.451E-01	1.272E+00	7.749E-01	-2.894E+02
ADP - F	MJ	3.153E+04	6.030E+01	1.850E+02	2.328E+02	1.778E+01	-1.409E+04
ADP - MM	kg Sb eq	6.689E-02	1.652E-06	4.211E-05	1.113E-05	1.062E-06	-1.011E-02
PERE	MJ	2.611E+03	3.692E-01	2.883E+00	1.176E+01	1.600E-01	-1.367E+03
PERM	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PERT	MJ	2.611E+03	3.692E-01	2.883E+00	1.176E+01	1.600E-01	-1.367E+03
PENRE	MJ	3.153E+04	6.030E+01	1.850E+02	2.328E+02	1.778E+01	-1.409E+04
PENRM	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PENRT	MJ	3.153E+04	6.030E+01	1.850E+02	2.328E+02	1.778E+01	-1.409E+04
SM	kg	2.311E+02	0.000E+00	1.667E-02	2.738E-02	4.381E-03	-2.397E+02
RSF	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NRSF	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
FW	m^3	3.191E+01	4.404E-03	2.902E-02	5.020E-02	1.851E-02	-1.543E+01
HW	Kg	3.059E+00	5.645E-04	4.807E-03	3.039E-03	2.599E-04	-4.368E-01
NHW	Kg	2.423E+02	4.069E-02	1.044E+01	2.422E-01	1.160E+02	-1.543E+02
RW	kg	2.863E-02	6.309E-06	5.364E-05	1.025E-04	2.594E-06	-1.050E-02
REUSE	Kg	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RECYCLE	Kg	7.573E+00	0.000E+00	1.881E-02	3.633E-02	7.118E-03	-6.577E+02
EN-REC	kg	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
EE-E	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
EE-T	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

PAINTED SHEET METAL

ID	U.o.M.	A1-A3	C1	C2	C3	C4	D
GWP - t	kg CO_2 eq	3.252E+03	4.631E+00	1.297E+01	1.642E+01	7.266E-01	-1.313E+03
GWP - fossil	kg CO_2 eq	3.257E+03	4.630E+00	1.296E+01	1.643E+01	7.259E-01	-1.310E+03
GWP - biogenic	kg CO_2 eq	-1.615E+01	9.376E-04	8.678E-03	-7.017E-03	3.553E-04	-2.053E+00
GWP - luluc	kg CO_2 eq	1.111E+01	4.737E-04	4.370E-03	1.603E-03	4.126E-04	-8.326E-01
GWP - GHG	kg CO_2 eq	3.271E+03	4.631E+00	1.296E+01	1.643E+01	7.265E-01	-1.312E+03
ODP	kg CFC-11 eq	2.580E-05	6.878E-08	2.829E-07	3.481E-07	2.024E-08	-6.440E-06
POCP	kg NMVOC eq	1.047E+01	6.310E-02	6.415E-02	4.587E-02	7.693E-03	-4.419E+00
AP	mol H+ eq	1.333E+01	4.138E-02	4.188E-02	6.406E-02	5.084E-03	-5.670E+00
EP - freshwater	kg P eq	1.307E+00	1.493E-04	8.911E-04	3.762E-03	6.357E-05	-7.718E-01
EP - marine	kg N eq	3.236E+00	1.926E-02	1.413E-02	1.150E-02	1.951E-03	-1.288E+00
EP - terrestrial	mol N eq	3.201E+01	2.109E-01	1.537E-01	1.211E-01	2.132E-02	-1.321E+01
WDP	m^3 depriv.	8.355E+02	1.288E-01	7.451E-01	1.272E+00	7.749E-01	-2.851E+02
ADP - F	MJ	3.647E+04	6.030E+01	1.850E+02	2.328E+02	1.778E+01	-1.387E+04
ADP - MM	kg Sb eq	6.969E-02	1.652E-06	4.211E-05	1.113E-05	1.062E-06	-9.956E-03
PERE	MJ	3.061E+03	3.692E-01	2.883E+00	1.176E+01	1.600E-01	-1.346E+03
PERM	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PERT	MJ	3.061E+03	3.692E-01	2.883E+00	1.176E+01	1.600E-01	-1.346E+03
PENRE	MJ	3.650E+04	6.030E+01	1.850E+02	2.328E+02	1.778E+01	-1.387E+04
PENRM	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PENRT	MJ	3.650E+04	6.030E+01	1.850E+02	2.328E+02	1.778E+01	-1.387E+04
SM	kg	2.412E+02	0.000E+00	1.667E-02	2.738E-02	4.381E-03	-2.361E+02
RSF	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NRSF	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
FW	m^3	3.624E+01	4.401E-03	2.900E-02	4.971E-02	1.851E-02	-1.518E+01
HW	Kg	3.688E+00	5.645E-04	4.807E-03	3.039E-03	2.599E-04	-4.302E-01
NHW	Kg	2.862E+02	4.069E-02	1.044E+01	2.422E-01	1.160E+02	-1.519E+02
RW	kg	3.136E-02	6.309E-06	5.364E-05	1.025E-04	2.594E-06	-1.034E-02
REUSE	Kg	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RECYCLE	Kg	8.283E+00	0.000E+00	1.881E-02	3.633E-02	7.118E-03	-6.477E+02
EN-REC	kg	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
EE-E	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
EE-T	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

ADDITIONAL ENVIRONMENTAL INFORMATION

The steel used has an average recycled content of 17.8%: this percentage is calculated as a weighted average of the incoming raw material (from Type III environmental declarations and from self-declarations compliant with ISO 14021 standard). The steel supplies come from blast furnace (with an average recycled content of 16.5%) or from an electric arc furnace (with an average recycled content of 79.2%).

Regardless of the type of product considered, the element that most affects the final result is the steel purchased which represents the input element to the various company sites, intended for the subsequent production of semifinished products. Among the processes carried out by the company, those that have the greatest impact are galvanizing and painting. Slitting and flattening activities have a marginal impact on the final result.

It should be noted that at the end of its useful life, the product is destined for recycling. In particular, the amount of steel destined for recycling is 88.4 % in line with what is indicated in the "Special waste report" of ISPRA – No. 402/2024.

The products do not contain hazardous substances from the SVHC Candidate List for Authorization in quantities greater than 0.1%.

The impacts of energy consumption in the processes within the company boundaries are marginal compared to the impact associated with the supply of raw materials.

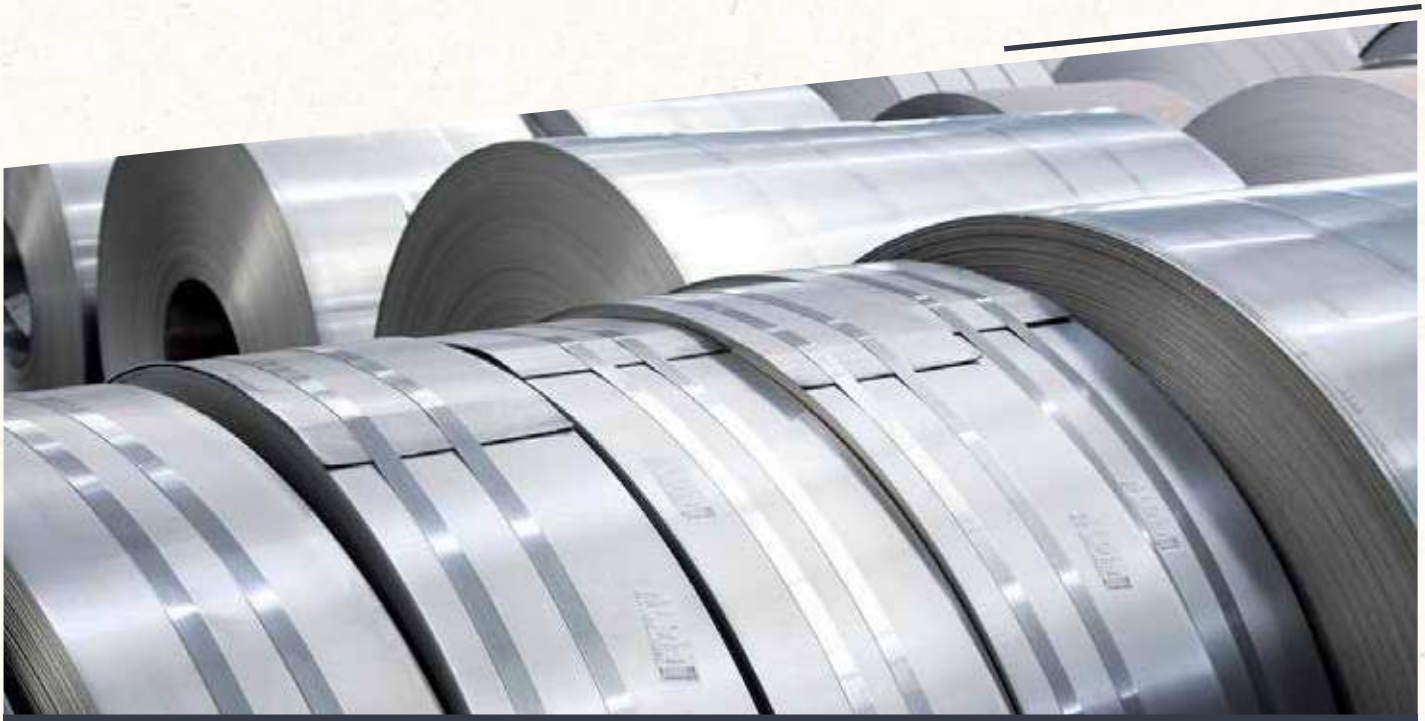
DIFFERENCE FROM PREVIOUS VERSION

Compared to the previous version of the EPD Declaration (revision on 2024-05-03), the main changes made to the data analyzed are listed below:

- Site-specific data were collected and used (for modules A1, A2 and A3) in relation to all environmental matrices in reference to the year 2024, above all a part of electric energy supply from renewable sources and the subsequent Guarantees of Origin (GO) cancellation;
- The reference database updated to the latest available version was used as well as the new version of the software (all processes refer to Ecoinvent 3.11 – March 2025 and the software SimaPro is in version 10.2.0.0).

REFERENCES

- General Programme Instructions of the International EPD® System. Version 3.01;
- PCR 2019:14 - Version 1.11 "CONSTRUCTION PRODUCTS";
- Product Category Rules for Type III environmental product declaration of construction products to EN 15804;
- Ecoinvent database v.3.11– March 2025;
- UNI EN ISO 14025: 2010 "Environmental labels and declarations - Type III environmental declarations - Principles and procedures";
- UNI EN ISO 14040: 2021 "Environmental management - Life cycle assessment - Principles and framework";
- UNI EN ISO 14044:2021 " Environmental management - Life cycle assessment - Requirements and guidelines";
- UNI EN ISO 15804:2021 "Sustainability of buildings - Environmental product declarations - Development framework rules by product category";
- European Residual Mixes 2023 Association of Issuing Bodies "European Residual Mixes Results of the calculation of Residual Mixes for the calendar year 2023" - version 1.0, 2024-05-30;
- ISPRA " Special waste report" – n° 402/2024 – Ed. 2024;
- CSIRO "Metal recycling: The need for a life cycle approach" – May 2013;
- Environmental engineering "WASTE FROM CONSTRUCTION AND LCA DEMOLITION FROM THE DEMOLITION OF 51 RESIDENTIAL BUILDINGS" - Michele Paleari, Politecnico di Milano – 26-11-2015.



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