



ENVIRONMENTAL PRODUCT DECLARATION

EN

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

**CARBON STEEL COILS,
STRIPS AND SHEETS FOR COILS**

From
Marcegaglia Carbon Steel S.p.A.

Programme:

The International EPD® System
www.environdec.com

Programme operator:
EPD International AB

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



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General information

PROGRAMME INFORMATION

Programme:	The International EPD [®] System
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Website:	www.environdec.com
E-mail:	info@environdec.com

The standard EN 15804 represents the framework for the Product Category Rules (PCR)

Product Category Rules (PCR):
Construction products, 2019:14, version 1.11, UN CPC 54.

PCR review was conducted by:

The Technical Committee of the International EPD[®] System. Review chair: Claudia A. Peña -
Contact via the Secretariat www.environdec.com/contact

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

EPD verification by accredited certification body

Third-party verification: Bureau Veritas 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 from different programmes may not be comparable.
EPDs of construction products may not be comparable if they do not comply with UNI EN 15804. For further information about comparability, see EN 15804 and ISO 14025.

INFORMATION ON THE COMPANY

Owner of the EPD:

Marcegaglia Carbon Steel S.p.A.
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Contact:

For more information on this product declaration and/or its configurations, the following references are available:

Mail: info@marcegaglia.com

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Description of the organisation:

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-related or management system-related certifications:

- Quality management system compliant with the requirements of the standard UNI EN ISO 9001:2015 (certificate n° 10233/04/S, RINA Services SpA);
- Environmental management system compliant with the requirements of the standard UNI EN ISO 14001:2015 (certificate n° EMS-262/S, RINA Services SpA);

INFORMATION ON THE PRODUCT

Product name:

Coils, strips and sheets in carbon steel

Product identification:

Coils, strips and sheets in carbon steel

Product description:

Starting from the processing as part of its controlled production chain of carbon steel coil, Marcegaglia Carbon Steel obtains the range of flat products that include pickled, cold rolled and galvanized coils, pickled, cold and rolled and galvanized strips and checkered sheets.

and rusticated. With great versatility and flexibility, Marcegaglia precision flat products are produced in the plants of Gazoldo degli Ippoliti (MN), Ravenna (RA) and Corsico (MI).

The static annealing and skinpassing plants connected to the cold rolling lines allow to obtain the maximum uniformity of the mechanical and magnetic properties of the machined steels, as well as to improve the surface qualities, according to the intended applications.

Among the many sectors served by the range of hot, cold

- Health and safety management system compliant with the requirements of the standard UNI ISO 45001:2018 (certificate n° OHS-260, RINA Services SpA);
- Energy management system compliant with the requirements of the standard UNI CEI EN ISO 50001:2018 (certificate n° EnergyMS-137, RINA Services SpA);
- Social responsibility management system compliant with the requirements of the standard SA 8000:2014 (certificate n° SA-2040, RINA Services SpA);
- Carbon Footprint Product - CFP Systematic Approach management system compliant with the requirements of the standard ISO 14067:2018 (certificate n° IT330357-1, Bureau Veritas Italia SpA).

Name and location of production site(s):

- Corsico plant: Antonio Canova street, 7/9 – 20094 - Corsico (MI);
- Gazoldo degli Ippoliti plant: Bresciani street, 16 – 46040 - Gazoldo Degli Ippoliti (MN);
- Ravenna plant: Baiona street, 141 – 48123 – Ravenna (RA).

and galvanized coils are the mechanical and packaging industry, construction, the production of furniture, household appliances, plumbing and heating systems.

The range of special Marcegaglia Carbon Steel strips includes, in addition to grades for deep drawing, semiprocessed magnetic steels and galvanized materials with shiny smooth surfaces for specific industrial applications including fine blanking.

Construction, street furniture, storage systems, household appliances, mechanics and automotive are some of the sectors of use of the Marcegaglia Carbon Steel range of flattened sheets.

From the company website it is possible to consult the product catalogs within which the technical characteristics of the same are described in detail.

UN CPC CODE:

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

Geographical scope:

The whole world

INFORMATION ON THE LCA

Functional unit:

The functional unit of the system considered is the ton of 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:

The data used are representative of the year 2023.

Database(s) and LCA software used:

Ecoinvent database v.3.9.1, January 2023 / Software used SimaPro rel. 9.5.0.0

Description of the 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 include the procurement processes of the materials (raw materials and auxiliary materials), as well as those of production.

The modules C1-C4 consider the uninstallation, transport, sorting and disposal of components deriving from the end-of-life operations of road barriers. These operations can not be directly checked by the company: in this regard, literature relating to the construction sector is used. It is considered:

- an average diesel consumption equivalent to 143.2 MJ as well as 0.013 MWh of electricity for each ton of material demolished;
- an average distance of 80 km to transport the material to the recovery centre;
- the same energy consumption already mentioned for the demolition activity also for the waste treatment activity.

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”.

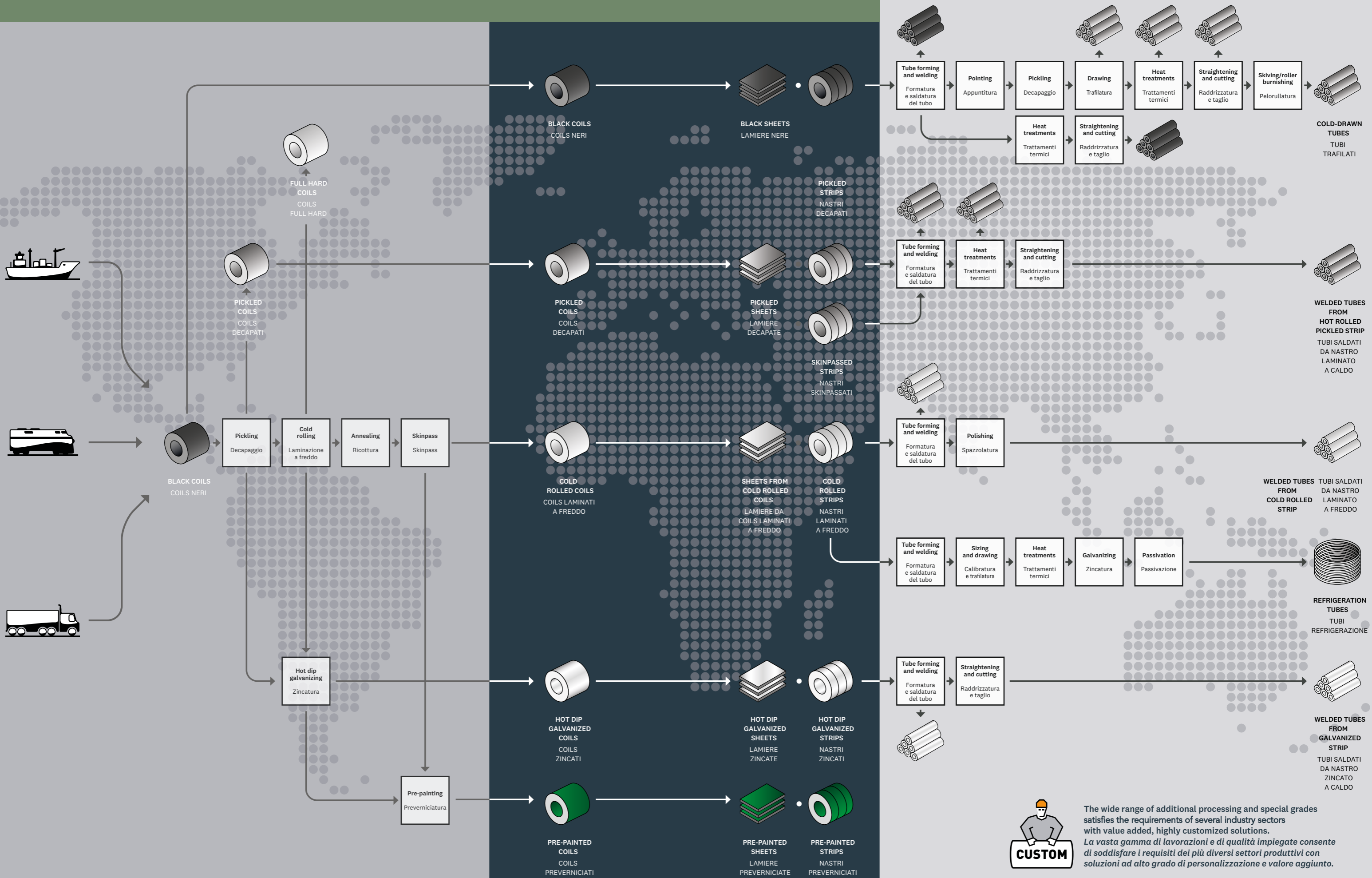
DIFFERENCES VERSUS PREVIOUS VERSIONS

Compared to the previous version of the EPD Declaration (revision on 16/02/2023), 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

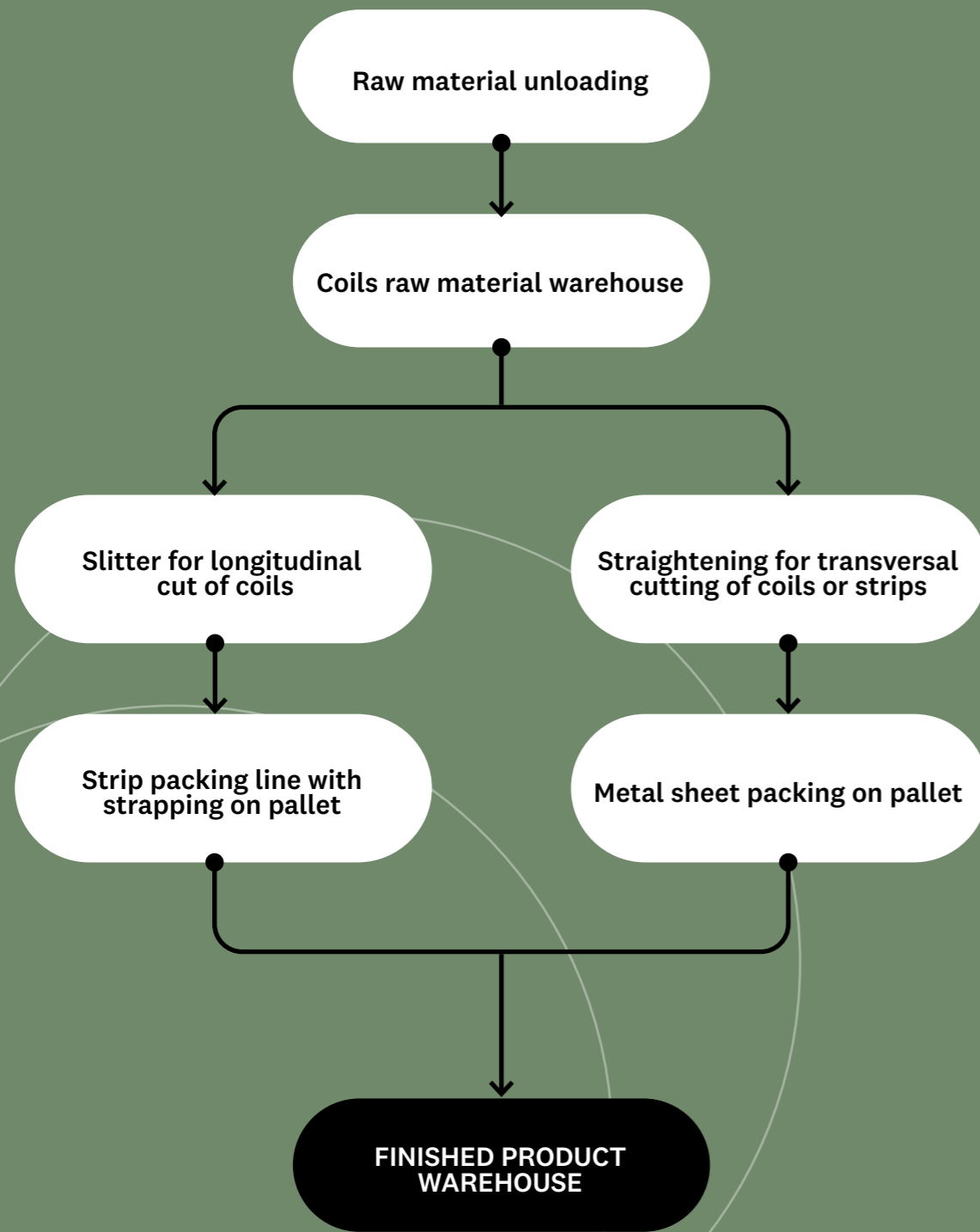
2023, above all a part of electric energy supply from renewable sources and the subsequent Guarantees of Origin (GO) cancellation.

CARBON STEEL PRODUCTS MANUFACTURING PROCESS



The wide range of additional processing and special grades satisfies the requirements of several industry sectors with value added, highly customized solutions. *La vasta gamma di lavorazioni e di qualità impiegate consente di soddisfare i requisiti dei più diversi settori produttivi con soluzioni ad alto grado di personalizzazione e valore aggiunto.*

BLOCK DIAGRAM OF THE PRODUCTION PROCESS OF THE FLAT PRODUCTS



Other information:

Description of the 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 is made up of carbon steel coils (almost entirely procured from the dock on the site) and auxiliary materials.

Auxiliary materials are substances such as hydraulic oils, protective oils, lubricants, paints, pickling products, detergents, which enter as raw materials.

The plant configuration includes the following process units: pickling, rolling, annealing, skin-passing, galvanizing, painting, 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.

The 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).

STRIPS PRODUCTION

The production cycle at the Marcegaglia Carbon Steel plant in Gazoldo degli Ippoliti and Corsico 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.

Cold rolling

The coils are prepared for the rolling process by raw material shears at a variable width from a minimum of 320 mm to a maximum of 550 mm and stored in the warehouses at the entrance to the rolling mills. The cold rolling process, which aims to reduce the thickness of the strip, produces an increase in strength characteristics and a lowering of those of quenching, to a greater extent the higher the degree of reduction. During the rolling phase, in order to reduce friction between the rolling rolls and the strip, an oil emulsion is used.

The laminated strips are placed in the appropriate warehouse for cooling and the subsequent annealing process.

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).



PRODUCTION 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.

ALLOCATION RULES

Mass-based allocation took place for energy consumption, water drains, air emissions and waste.

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

Module	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	Operational water use	De-construction demolition	Transport	Waste processing		Disposal
Module	A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Modules declared	X	X	X	ND	ND	ND	ND	ND	ND	ND	ND	ND	X	X	X	X	X
Geography	GLO	GLO	IT	-	-	-	-	-	-	-	-	-	GLO	GLO	GLO	GLO	IT
Specific data	> 90%			-	-	-	-	-	-	-	-	-	-	-	-	-	-
Variations-product	Not relevant			-	-	-	-	-	-	-	-	-	-	-	-	-	-
Variation-site	Not relevant			-	-	-	-	-	-	-	-	-	-	-	-	-	-

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

Information on the content

The raw material (black coil) purchased by Marcegaglia Carbon Steel S.p.A. is characterized by a recycled content of 20.9%: this percentage is calculated as a weighted average of the same value associated with the incoming raw material and deriving both from Type III environmental declarations as well as from self-declarations compliant with the UNI EN ISO standard 14021. The steel comes both from blast furnace (with a recycled content of 18.4%) and from electric arc furnace (with an average recycled content of 77.2%).

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 tonne of final product identify a value of less than 1%.

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

Product components	Weight [t]	Post-consumer material, weight [%]
Steel	1	20.9

Environmental Information

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

ENVIRONMENTAL IMPACTS

Impact category	ID	U.o.M.
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 CO ₂ 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

CONSUMPTION OF RESOURCES

Impact category	ID	U.o.M.
Renewable energy resources (excluding raw materials)	PERE	MJ
Renewable energy resources (with raw materials)	PERM	MJ
Total renewable energy resources	PERT	MJ
Non-renewable energy resources (excluding raw materials)	PENRE	MJ
Non-renewable energy resources (with raw materials)	PENRM	MJ
Total non-renewable energy resources	PENRT	MJ
Secondary resources	SM	kg
Renewable secondary fuel	RSF	MJ
Non-renewable secondary fuel	NRSF	MJ
Net freshwater use	FW	m ³

WASTE PRODUCTION

Impact category	ID	U.o.M.
Hazardous waste	HW	kg
Non-hazardous waste	NHW	kg
Radioactive waste	RW	kg

OUTPUT FLOWS

Impact category	ID	U.o.M.
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

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

BLACK COIL

ID	U.o.M.	A1-A3	C1	C2	C3	C4	D
GWP - t	kg CO ₂ eq	2.355E+03	2.151E+01	8.402E+00	2.151E+01	6.145E-02	-1.344E+03
GWP - fossil	kg CO ₂ eq	2.349E+03	2.151E+01	8.391E+00	2.151E+01	6.138E-02	-1.340E+03
GWP - biogenic	kg CO ₂ eq	4.586E+00	7.403E-04	6.454E-03	7.403E-04	3.515E-05	-2.862E+00
GWP - luluc	kg CO ₂ eq	1.182E+00	2.503E-03	3.947E-03	2.503E-03	3.706E-05	-8.904E-01
GWP - GHG	kg CO ₂ eq	2.352E+03	2.151E+01	8.398E+00	2.151E+01	6.144E-02	-1.342E+03
ODP	kg CFC-11 eq	3.198E-05	3.814E-07	1.836E-07	3.814E-07	1.778E-09	-2.345E-05
POCP	kg NMVOC eq	1.097E+01	2.197E-01	4.397E-02	2.197E-01	6.624E-04	-6.388E+00
AP	mol H+ eq	1.056E+01	1.576E-01	2.824E-02	1.576E-01	4.625E-04	-6.063E+00
EP - freshwater	kg P eq	8.388E-01	1.435E-03	5.972E-04	1.435E-03	5.112E-06	-6.528E-01
EP - marine	kg N eq	2.552E+00	6.601E-02	9.777E-03	6.601E-02	1.776E-04	-1.388E+00
EP - terrestrial	mol N eq	2.714E+01	7.171E-01	1.033E-01	7.171E-01	1.903E-03	-1.409E+01
WDP	m ³ depriv.	3.541E+02	9.842E-01	5.864E-01	9.842E-01	6.757E-02	9.812E+01
ADP - F	MJ	2.447E+04	2.861E+02	1.227E+02	2.861E+02	1.530E+00	-1.418E+04
ADP - MM	kg Sb eq	1.206E-02	9.525E-06	2.263E-05	9.525E-06	8.523E-08	-9.639E-03
PERE	MJ	3.347E+03	1.064E+01	2.231E+00	1.064E+01	1.699E-02	-1.585E+03
PERM	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PERT	MJ	3.347E+03	1.064E+01	2.231E+00	1.064E+01	1.699E-02	-1.585E+03
PENRE	MJ	3.032E+04	2.959E+02	1.222E+02	2.959E+02	1.523E+00	-1.750E+04
PENRM	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PENRT	MJ	3.032E+04	2.959E+02	1.222E+02	2.959E+02	1.523E+00	-1.750E+04
SM	kg	1.951E+02	1.446E-02	5.032E-02	1.446E-02	3.684E-04	-2.486E+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	1.717E+01	3.790E-02	2.493E-02	3.790E-02	1.633E-03	-1.567E+01
HW	kg	1.155E+02	5.914E-02	2.129E-01	5.914E-02	1.657E-03	-8.437E+01
NHW	kg	6.073E+02	1.919E-01	2.155E+01	1.919E-01	1.663E-02	-5.208E+02
RW	kg	1.413E-01	8.956E-05	4.046E-04	8.956E-05	2.393E-06	-1.134E-01
REUSE	kg	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RECYCLE	kg	4.989E+00	1.877E-02	5.691E-02	1.877E-02	6.035E-04	-6.821E+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	2.372E+03	2.151E+01	1.296E+01	2.151E+01	6.145E-02	-1.234E+03
GWP - fossil	kg CO ₂ eq	2.365E+03	2.151E+01	1.294E+01	2.151E+01	6.138E-02	-1.231E+03
GWP - biogenic	kg CO ₂ eq	5.393E+00	7.403E-04	1.132E-02	7.403E-04	3.515E-05	-2.628E+00
GWP - luluc	kg CO ₂ eq	1.238E+00	2.503E-03	6.241E-03	2.503E-03	3.706E-05	-8.177E-01
GWP - GHG	kg CO ₂ eq	2.368E+03	2.151E+01	1.295E+01	2.151E+01	6.144E-02	-1.232E+03
ODP	kg CFC-11 eq	3.392E-05	3.814E-07	2.819E-07	3.814E-07	1.778E-09	-2.153E-05
POCP	kg NMVOC eq	1.055E+01	2.197E-01	6.407E-02	2.197E-01	6.624E-04	-5.867E+00
AP	mol H+ eq	1.016E+01	1.576E-01	4.249E-02	1.576E-01	4.625E-04	-5.568E+00
EP - freshwater	kg P eq	7.949E-01	1.435E-03	9.088E-04	1.435E-03	5.112E-06	-5.995E-01
EP - marine	kg N eq	2.491E+00	6.601E-02	1.463E-02	6.601E-02	1.776E-04	-1.275E+00
EP - terrestrial	mol N eq	2.644E+01	7.171E-01	1.546E-01	7.171E-01	1.903E-03	-1.294E+01
WDP	m ³ depriv.	3.586E+02	9.842E-01	7.815E-01	9.842E-01	6.757E-02	9.012E+01
ADP - F	MJ	2.462E+04	2.861E+02	1.847E+02	2.861E+02	1.530E+00	-1.302E+04
ADP - MM	kg Sb eq	1.143E-02	9.525E-06	4.011E-05	9.525E-06	8.523E-08	-8.852E-03
PERE	MJ	3.473E+03	1.064E+01	3.563E+00	1.064E+01	1.699E-02	-1.456E+03
PERM	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PERT	MJ	3.473E+03	1.064E+01	3.563E+00	1.064E+01	1.699E-02	-1.456E+03
PENRE	MJ	3.015E+04	2.959E+02	1.835E+02	2.959E+02	1.523E+00	-1.607E+04
PENRM	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PENRT	MJ	3.015E+04	2.959E+02	1.835E+02	2.959E+02	1.523E+00	-1.607E+04
SM	kg	2.508E+02	1.446E-02	1.677E-02	1.446E-02	3.684E-04	-2.283E+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	1.715E+01	3.790E-02	3.213E-02	3.790E-02	1.633E-03	-1.439E+01
HW	kg	1.199E+02	5.914E-02	7.095E-02	5.914E-02	1.657E-03	-7.748E+01
NHW	kg	6.196E+02	1.918E-01	7.182E+00	1.918E-01	1.663E-02	-4.783E+02
RW	kg	1.716E-01	8.956E-05	1.349E-04	8.956E-05	2.393E-06	-1.042E-01
REUSE	kg	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RECYCLE	kg	4.959E+00	1.877E-02	1.897E-02	1.877E-02	6.035E-04	-6.265E+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	2.509E+03	2.151E+01	8.402E+00	2.151E+01	6.145E-02	-1.328E+03
GWP - fossil	kg CO ₂ eq	2.502E+03	2.151E+01	8.391E+00	2.151E+01	6.138E-02	-1.324E+03
GWP - biogenic	kg CO ₂ eq	5.226E+00	7.403E-04	6.454E-03	7.403E-04	3.515E-05	-2.828E+00
GWP - luluc	kg CO ₂ eq	1.238E+00	2.503E-03	3.947E-03	2.503E-03	3.706E-05	-8.799E-01
GWP - GHG	kg CO ₂ eq	2.506E+03	2.151E+01	8.398E+00	2.151E+01	6.144E-02	-1.326E+03
ODP	kg CFC-11 eq	3.522E-05	3.814E-07	1.836E-07	3.814E-07	1.778E-09	-2.317E-05
POCP	kg NMVOC eq	1.153E+01	2.197E-01	4.397E-02	2.197E-01	6.624E-04	-6.313E+00
AP	mol H+ eq	1.104E+01	1.576E-01	2.824E-02	1.576E-01	4.625E-04	-5.991E+00
EP - freshwater	kg P eq	8.721E-01	1.435E-03	5.972E-04	1.435E-03	5.112E-06	-6.451E-01
EP - marine	kg N eq	2.669E+00	6.601E-02	9.777E-03	6.601E-02	1.776E-04	-1.372E+00
EP - terrestrial	mol N eq	2.842E+01	7.171E-01	1.033E-01	7.171E-01	1.903E-03	-1.393E+01
WDP	m ³ depriv.	3.883E+02	9.842E-01	5.864E-01	9.842E-01	6.757E-02	9.696E+01
ADP - F	MJ	2.622E+04	2.861E+02	1.227E+02	2.861E+02	1.530E+00	-1.401E+04
ADP - MM	kg Sb eq	1.255E-02	9.525E-06	2.263E-05	9.525E-06	8.523E-08	-9.525E-03
PERE	MJ	3.663E+03	1.064E+01	2.231E+00	1.064E+01	1.699E-02	-1.566E+03
PERM	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PERT	MJ	3.663E+03	1.064E+01	2.231E+00	1.064E+01	1.699E-02	-1.566E+03
PENRE	MJ	3.233E+04	2.959E+02	1.222E+02	2.959E+02	1.523E+00	-1.729E+04
PENRM	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PENRT	MJ	3.233E+04	2.959E+02	1.222E+02	2.959E+02	1.523E+00	-1.729E+04
SM	kg	2.029E+02	1.446E-02	5.032E-02	1.446E-02	3.684E-04	-2.457E+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	1.884E+01	3.790E-02	2.493E-02	3.790E-02	1.633E-03	-1.548E+01
HW	kg	1.198E+02	5.914E-02	2.129E-01	5.914E-02	1.657E-03	-8.337E+01
NHW	kg	6.307E+02	1.918E-01	2.155E+01	1.918E-01	1.663E-02	-5.147E+02
RW	kg	1.469E-01	8.956E-05	4.046E-04	8.956E-05	2.393E-06	-1.121E-01
REUSE	kg	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RECYCLE	kg	5.327E+00	1.877E-02	5.691E-02	1.877E-02	6.035E-04	-6.741E+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

GALVANISED COIL

ID	U.o.M.	A1-A3	C1	C2	C3	C4	D
GWP - t	kg CO ₂ eq	2.720E+03	2.151E+01	8.402E+00	2.151E+01	6.145E-02	-1.324E+03
GWP - fossil	kg CO ₂ eq	2.711E+03	2.151E+01	8.391E+00	2.151E+01	6.138E-02	-1.320E+03
GWP - biogenic	kg CO ₂ eq	7.844E+00	7.403E-04	6.454E-03	7.403E-04	3.515E-05	-2.819E+00
GWP - luluc	kg CO ₂ eq	1.551E+00	2.503E-03	3.947E-03	2.503E-03	3.706E-05	-8.772E-01
GWP - GHG	kg CO ₂ eq	2.715E+03	2.151E+01	8.398E+00	2.151E+01	6.144E-02	-1.322E+03
ODP	kg CFC-11 eq	4.115E-05	3.814E-07	1.836E-07	3.814E-07	1.778E-09	-2.310E-05
POCP	kg NMVOC eq	1.243E+01	2.197E-01	4.397E-02	2.197E-01	6.624E-04	-6.294E+00
AP	mol H+ eq	1.200E+01	1.576E-01	2.824E-02	1.576E-01	4.625E-04	-5.974E+00
EP - freshwater	kg P eq	9.698E-01	1.435E-03	5.972E-04	1.435E-03	5.112E-06	-6.432E-01
EP - marine	kg N eq	2.931E+00	6.601E-02	9.777E-03	6.601E-02	1.776E-04	-1.368E+00
EP - terrestrial	mol N eq	3.099E+01	7.171E-01	1.033E-01	7.171E-01	1.903E-03	-1.389E+01
WDP	m ³ depriv.	4.807E+02	9.842E-01	5.864E-01	9.842E-01	6.757E-02	9.668E+01
ADP - F	MJ	2.905E+04	2.861E+02	1.227E+02	2.861E+02	1.530E+00	-1.397E+04
ADP - MM	kg Sb eq	5.283E-02	9.525E-06	2.263E-05	9.525E-06	8.523E-08	-9.497E-03
PERE	MJ	4.011E+03	1.064E+01	2.231E+00	1.064E+01	1.699E-02	-1.562E+03
PERM	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PERT	MJ	4.011E+03	1.064E+01	2.231E+00	1.064E+01	1.699E-02	-1.562E+03
PENRE	MJ	3.538E+04	2.959E+02	1.222E+02	2.959E+02	1.523E+00	-1.724E+04
PENRM	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PENRT	MJ	3.538E+04	2.959E+02	1.222E+02	2.959E+02	1.523E+00	-1.724E+04
SM	kg	2.054E+02	1.446E-02	5.032E-02	1.446E-02	3.684E-04	-2.449E+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	2.814E+01	3.790E-02	2.493E-02	3.790E-02	1.633E-03	-1.544E+01
HW	kg	1.221E+02	5.914E-02	2.129E-01	5.914E-02	1.657E-03	-8.312E+01
NHW	kg	6.432E+02	1.918E-01	2.155E+01	1.918E-01	1.663E-02	-5.131E+02
RW	kg	1.498E-01	8.956E-05	4.046E-04	8.956E-05	2.393E-06	-1.118E-01
REUSE	kg	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RECYCLE	kg	5.654E+00	1.877E-02	5.691E-02	1.877E-02	6.035E-04	-6.721E+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
GWP - t	kg CO ₂ eq	3.034E+03	2.151E+01	8.402E+00	2.151E+01	6.145E-02	-1.300E+03
GWP - fossil	kg CO ₂ eq	3.011E+03	2.151E+01	8.391E+00	2.151E+01	6.138E-02	-1.296E+03
GWP - biogenic	kg CO ₂ eq	-2.985E+00	7.403E-04	6.454E-03	7.403E-04	3.515E-05	-2.769E+00
GWP - luluc	kg CO ₂ eq	2.628E+01	2.503E-03	3.947E-03	2.503E-03	3.706E-05	-8.615E-01
GWP - GHG	kg CO ₂ eq	3.041E+03	2.151E+01	8.398E+00	2.151E+01	6.144E-02	-1.298E+03
ODP	kg CFC-11 eq	4.951E-05	3.814E-07	1.836E-07	3.814E-07	1.778E-09	-2.269E-05
POCP	kg NMVOC eq	1.366E+01	2.197E-01	4.397E-02	2.197E-01	6.624E-04	-6.181E+00
AP	mol H+ eq	1.360E+01	1.576E-01	2.824E-02	1.576E-01	4.625E-04	-5.866E+00
EP - freshwater	kg P eq	1.035E+00	1.435E-03	5.972E-04	1.435E-03	5.112E-06	-6.316E-01
EP - marine	kg N eq	3.269E+00	6.601E-02	9.777E-03	6.601E-02	1.776E-04	-1.343E+00
EP - terrestrial	mol N eq	3.356E+01	7.171E-01	1.033E-01	7.171E-01	1.903E-03	-1.364E+01
WDP	m ³ depriv.	6.191E+02	9.842E-01	5.864E-01	9.842E-01	6.757E-02	9.494E+01
ADP - F	MJ	3.321E+04	2.861E+02	1.227E+02	2.861E+02	1.530E+00	-1.372E+04
ADP - MM	kg Sb eq	5.508E-02	9.525E-06	2.263E-05	9.525E-06	8.523E-08	-9.326E-03
PERE	MJ	4.932E+03	1.064E+01	2.231E+00	1.064E+01	1.699E-02	-1.534E+03
PERM	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PERT	MJ	4.932E+03	1.064E+01	2.231E+00	1.064E+01	1.699E-02	-1.534E+03
PENRE	MJ	3.990E+04	2.959E+02	1.222E+02	2.959E+02	1.523E+00	-1.693E+04
PENRM	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PENRT	MJ	3.990E+04	2.959E+02	1.222E+02	2.959E+02	1.523E+00	-1.693E+04
SM	kg	2.169E+02	1.446E-02	5.032E-02	1.446E-02	3.684E-04	-2.405E+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	3.281E+01	3.790E-02	2.493E-02	3.790E-02	1.633E-03	-1.516E+01
HW	kg	1.265E+02	5.914E-02	2.129E-01	5.914E-02	1.657E-03	-8.163E+01
NHW	kg	6.709E+02	1.918E-01	2.155E+01	1.918E-01	1.663E-02	-5.039E+02
RW	kg	1.563E-01	8.956E-05	4.046E-04	8.956E-05	2.393E-06	-1.098E-01
REUSE	kg	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RECYCLE	kg	6.156E+00	1.877E-02	5.691E-02	1.877E-02	6.035E-04	-6.600E+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	2.629E+03	2.151E+01	8.402E+00	2.151E+01	6.145E-02	-1.314E+03
GWP - fossil	kg CO ₂ eq	2.623E+03	2.151E+01	8.391E+00	2.151E+01	6.138E-02	-1.310E+03
GWP - biogenic	kg CO ₂ eq	5.432E+00	7.403E-04	6.454E-03	7.403E-04	3.515E-05	-2.798E+00
GWP - luluc	kg CO ₂ eq	1.289E+00	2.503E-03	3.947E-03	2.503E-03	3.706E-05	-8.707E-01
GWP - GHG	kg CO ₂ eq	2.626E+03	2.151E+01	8.398E+00	2.151E+01	6.144E-02	-1.312E+03
ODP	kg CFC-11 eq	3.932E-05	3.814E-07	1.836E-07	3.814E-07	1.778E-09	-2.293E-05
POCP	kg NMVOC eq	1.209E+01	2.197E-01	4.397E-02	2.197E-01	6.624E-04	-6.247E+00
AP	mol H+ eq	1.147E+01	1.576E-01	2.824E-02	1.576E-01	4.625E-04	-5.929E+00
EP - freshwater	kg P eq	9.029E-01	1.435E-03	5.972E-04	1.435E-03	5.112E-06	-6.383E-01
EP - marine	kg N eq	2.790E+00	6.601E-02	9.777E-03	6.601E-02	1.776E-04	-1.358E+00
EP - terrestrial	mol N eq	2.962E+01	7.171E-01	1.033E-01	7.171E-01	1.903E-03	-1.378E+01
WDP	m ³ depriv.	4.190E+02	9.842E-01	5.864E-01	9.842E-01	6.757E-02	9.595E+01
ADP - F	MJ	2.814E+04	2.861E+02	1.227E+02	2.861E+02	1.530E+00	-1.387E+04
ADP - MM	kg Sb eq	1.301E-02	9.525E-06	2.263E-05	9.525E-06	8.523E-08	-9.426E-03
PERE	MJ	3.880E+03	1.064E+01	2.231E+00	1.064E+01	1.699E-02	-1.550E+03
PERM	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PERT	MJ	3.880E+03	1.064E+01	2.231E+00	1.064E+01	1.699E-02	-1.550E+03
PENRE	MJ	3.453E+04	2.959E+02	1.222E+02	2.959E+02	1.523E+00	-1.711E+04
PENRM	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PENRT	MJ	3.453E+04	2.959E+02	1.222E+02	2.959E+02	1.523E+00	-1.711E+04
SM	kg	2.096E+02	1.446E-02	5.032E-02	1.446E-02	3.684E-04	-2.431E+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	2.020E+01	3.790E-02	2.493E-02	3.790E-02	1.633E-03	-1.532E+01
HW	kg	1.244E+02	5.914E-02	2.129E-01	5.914E-02	1.657E-03	-8.250E+01
NHW	kg	6.529E+02	1.918E-01	2.155E+01	1.918E-01	1.663E-02	-5.093E+02
RW	kg	1.533E-01	8.956E-05	4.046E-04	8.956E-05	2.393E-06	-1.109E-01
REUSE	kg	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RECYCLE	kg	5.680E+00	1.877E-02	5.691E-02	1.877E-02	6.035E-04	-6.671E+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	2.465E+03	2.151E+01	1.296E+01	2.151E+01	6.145E-02	-1.280E+03
GWP - fossil	kg CO ₂ eq	2.467E+03	2.151E+01	1.294E+01	2.151E+01	6.138E-02	-1.277E+03
GWP - biogenic	kg CO ₂ eq	-3.321E+00	7.403E-04	1.132E-02	7.403E-04	3.515E-05	-2.727E+00
GWP - luluc	kg CO ₂ eq	1.288E+00	2.503E-03	6.241E-03	2.503E-03	3.706E-05	-8.484E-01
GWP - GHG	kg CO ₂ eq	2.471E+03	2.151E+01	1.295E+01	2.151E+01	6.144E-02	-1.279E+03
ODP	kg CFC-11 eq	3.398E-05	3.814E-07	2.819E-07	3.814E-07	1.778E-09	-2.234E-05
POCP	kg NMVOC eq	1.133E+01	2.197E-01	6.407E-02	2.197E-01	6.624E-04	-6.086E+00
AP	mol H+ eq	1.081E+01	1.576E-01	4.249E-02	1.576E-01	4.625E-04	-5.777E+00
EP - freshwater	kg P eq	8.565E-01	1.435E-03	9.088E-04	1.435E-03	5.112E-06	-6.220E-01
EP - marine	kg N eq	2.656E+00	6.601E-02	1.463E-02	6.601E-02	1.776E-04	-1.323E+00
EP - terrestrial	mol N eq	2.820E+01	7.171E-01	1.546E-01	7.171E-01	1.903E-03	-1.343E+01
WDP	m ³ depriv.	3.651E+02	9.842E-01	7.815E-01	9.842E-01	6.757E-02	9.349E+01
ADP - F	MJ	2.574E+04	2.861E+02	1.847E+02	2.861E+02	1.530E+00	-1.351E+04
ADP - MM	kg Sb eq	1.243E-02	9.525E-06	4.011E-05	9.525E-06	8.523E-08	-9.184E-03
PERE	MJ	3.984E+03	1.064E+01	3.563E+00	1.064E+01	1.699E-02	-1.510E+03
PERM	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PERT	MJ	3.984E+03	1.064E+01	3.563E+00	1.064E+01	1.699E-02	-1.510E+03
PENRE	MJ	3.164E+04	2.959E+02	1.835E+02	2.959E+02	1.523E+00	-1.667E+04
PENRM	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PENRT	MJ	3.164E+04	2.959E+02	1.835E+02	2.959E+02	1.523E+00	-1.667E+04
SM	kg	2.272E+02	1.440E-02	1.662E-02	1.440E-02	3.668E-04	-2.368E+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	1.762E+01	3.790E-02	3.213E-02	3.790E-02	1.633E-03	-1.493E+01
HW	kg	1.187E+02	5.914E-02	7.095E-02	5.914E-02	1.657E-03	-8.039E+01
NHW	kg	6.259E+02	1.918E-01	7.182E+00	1.918E-01	1.663E-02	-4.962E+02
RW	kg	1.578E-01	8.956E-05	1.349E-04	8.956E-05	2.393E-06	-1.081E-01
REUSE	kg	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RECYCLE	kg	5.063E+00	1.877E-02	1.897E-02	1.877E-02	6.035E-04	-6.500E+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	2.547E+03	1.795E+01	1.357E+01	1.795E+01	3.112E-01	-1.287E+03
GWP - fossil	kg CO ₂ eq	2.549E+03	1.795E+01	1.355E+01	1.795E+01	3.107E-01	-1.284E+03
GWP - biogenic	kg CO ₂ eq	-3.251E+00	-8.894E-05	1.197E-02	-8.894E-05	3.119E-04	-2.741E+00
GWP - luluc	kg CO ₂ eq	1.298E+00	2.102E-03	6.549E-03	2.102E-03	1.901E-04	-8.530E-01
GWP - GHG	kg CO ₂ eq	2.553E+03	1.795E+01	1.357E+01	1.795E+01	3.117E-01	-1.286E+03
ODP	kg CFC-11 eq	3.498E-05	3.249E-07	2.952E-07	3.249E-07	8.249E-09	-2.246E-05
POCP	kg NMVOC eq	1.164E+01	1.702E-01	6.680E-02	1.702E-01	3.014E-03	-6.120E+00
AP	mol H+ eq	1.122E+01	1.244E-01	4.441E-02	1.244E-01	2.109E-03	-5.808E+00
EP - freshwater	kg P eq	8.762E-01	1.328E-03	9.509E-04	1.328E-03	3.077E-05	-6.254E-01
EP - marine	kg N eq	2.719E+00	5.064E-02	1.529E-02	5.064E-02	8.132E-04	-1.330E+00
EP - terrestrial	mol N eq	2.891E+01	5.500E-01	1.615E-01	5.500E-01	8.714E-03	-1.350E+01
WDP	m ³ depriv.	3.841E+02	8.848E-01	8.085E-01	8.848E-01	2.404E-01	9.400E+01
ADP - F	MJ	2.678E+04	2.395E+02	1.931E+02	2.395E+02	6.737E+00	-1.358E+04
ADP - MM	kg Sb eq	1.255E-02	8.288E-06	4.244E-05	8.288E-06	5.934E-07	-9.234E-03
PERE	MJ	3.103E+03	1.034E+01	3.742E+00	1.034E+01	1.078E-01	-1.519E+03
PERM	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PERT	MJ	3.103E+03	1.034E+01	3.992E+00	1.084E+01	8.578E-01	-1.519E+03
PENRE	MJ	3.136E+04	2.488E+02	1.916E+02	2.488E+02	6.675E+00	-1.674E+04
PENRM	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PENRT	MJ	3.136E+04	2.488E+02	1.918E+02	2.493E+02	7.425E+00	-1.674E+04
SM	kg	1.840E+02	1.448E-02	3.522E-02	1.448E-02	-7.977E-02	-2.381E+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	1.413E+01	3.397E-02	3.332E-02	3.397E-02	6.062E-03	-1.510E+01
HW	kg	9.680E+01	4.606E-02	6.339E-02	4.606E-02	2.283E-03	-6.124E+01
NHW	kg	5.005E+02	1.439E-01	5.387E+00	1.439E-01	1.253E-02	-3.623E+02
RW	kg	1.290E-01	8.992E-05	2.937E-04	8.992E-05	1.941E-05	-1.087E-01
REUSE	kg	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RECYCLE	kg	4.624E+00	1.889E-02	3.789E-02	1.889E-02	3.204E-03	-6.535E+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 CO ₂ eq	2.613E+03	2.151E+01	8.402E+00	2.151E+01	6.145E-02	-1.310E+03
GWP - fossil	kg CO ₂ eq	2.613E+03	2.151E+01	8.391E+00	2.151E+01	6.138E-02	-1.306E+03
GWP - biogenic	kg CO ₂ eq	-1.351E+00	7.403E-04	6.454E-03	7.403E-04	3.515E-05	-2.790E+00
GWP - luluc	kg CO ₂ eq	1.299E+00	2.503E-03	3.947E-03	2.503E-03	3.706E-05	-8.680E-01
GWP - GHG	kg CO ₂ eq	2.617E+03	2.151E+01	8.398E+00	2.151E+01	6.144E-02	-1.308E+03
ODP	kg CFC-11 eq	3.689E-05	3.814E-07	1.836E-07	3.814E-07	1.778E-09	-2.286E-05
POCP	kg NMVOC eq	1.203E+01	2.197E-01	4.397E-02	2.197E-01	6.624E-04	-6.228E+00
AP	mol H+ eq	1.151E+01	1.576E-01	2.824E-02	1.576E-01	4.625E-04	-5.911E+00
EP - freshwater	kg P eq	9.088E-01	1.435E-03	5.972E-04	1.435E-03	5.112E-06	-6.364E-01
EP - marine	kg N eq	2.785E+00	6.601E-02	9.777E-03	6.601E-02	1.776E-04	-1.354E+00
EP - terrestrial	mol N eq	2.964E+01	7.171E-01	1.033E-01	7.171E-01	1.903E-03	-1.374E+01
WDP	m ³ depriv.	4.060E+02	9.842E-01	5.864E-01	9.842E-01	6.757E-02	9.566E+01
ADP - F	MJ	2.743E+04	2.861E+02	1.227E+02	2.861E+02	1.530E+00	-1.382E+04
ADP - MM	kg Sb eq	1.309E-02	9.525E-06	2.263E-05	9.525E-06	8.523E-08	-9.397E-03
PERE	MJ	4.117E+03	1.064E+01	2.231E+00	1.064E+01	1.699E-02	-1.545E+03
PERM	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PERT	MJ	4.117E+03	1.064E+01	2.231E+00	1.064E+01	1.699E-02	-1.545E+03
PENRE	MJ	3.379E+04	2.959E+02	1.222E+02	2.959E+02	1.523E+00	-1.706E+04
PENRM	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PENRT	MJ	3.379E+04	2.959E+02	1.222E+02	2.959E+02	1.523E+00	-1.706E+04
SM	kg	2.117E+02	1.446E-02	5.032E-02	1.446E-02	3.684E-04	-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	m ³	1.970E+01	3.790E-02	2.493E-02	3.790E-02	1.633E-03	-1.528E+01
HW	kg	1.246E+02	5.914E-02	2.129E-01	5.914E-02	1.657E-03	-8.225E+01
NHW	kg	6.564E+02	1.918E-01	2.155E+01	1.918E-01	1.663E-02	-5.078E+02
RW	kg	1.529E-01	8.956E-05	4.046E-04	8.956E-05	2.393E-06	-1.106E-01
REUSE	kg	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RECYCLE	kg	5.556E+00	1.877E-02	5.691E-02	1.877E-02	6.035E-04	-6.650E+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

GALVANISED COIL STRIP

ID	U.o.M.	A1-A3	C1	C2	C3	C4	D
GWP - t	kg CO ₂ eq	2.875E+03	1.795E+01	1.357E+01	1.795E+01	3.112E-01	-1.326E+03
GWP - fossil	kg CO ₂ eq	2.873E+03	1.795E+01	1.355E+01	1.795E+01	3.107E-01	-1.323E+03
GWP - biogenic	kg CO ₂ eq	-1.548E-01	-8.894E-05	1.197E-02	-8.894E-05	3.119E-04	-2.825E+00
GWP - luluc	kg CO ₂ eq	1.653E+00	2.102E-03	6.549E-03	2.102E-03	1.901E-04	-8.789E-01
GWP - GHG	kg CO ₂ eq	2.877E+03	1.795E+01	1.357E+01	1.795E+01	3.117E-01	-1.325E+03
ODP	kg CFC-11 eq	4.387E-05	3.249E-07	2.952E-07	3.249E-07	8.249E-09	-2.314E-05
POCP	kg NMVOC eq	1.317E+01	1.702E-01	6.680E-02	1.702E-01	3.014E-03	-6.306E+00
AP	mol H+ eq	1.268E+01	1.244E-01	4.441E-02	1.244E-01	2.109E-03	-5.985E+00
EP - freshwater	kg P eq	1.020E+00	1.328E-03	9.509E-04	1.328E-03	3.077E-05	-6.444E-01
EP - marine	kg N eq	3.103E+00	5.064E-02	1.529E-02	5.064E-02	8.132E-04	-1.371E+00
EP - terrestrial	mol N eq	3.282E+01	5.500E-01	1.615E-01	5.500E-01	8.714E-03	-1.391E+01
WDP	m ³ depriv.	5.072E+02	8.848E-01	8.085E-01	8.848E-01	2.404E-01	9.686E+01
ADP - F	MJ	3.095E+04	2.395E+02	1.931E+02	2.395E+02	6.737E+00	-1.400E+04
ADP - MM	kg Sb eq	5.532E-02	8.288E-06	4.244E-05	8.288E-06	5.934E-07	-9.515E-03
PERE	MJ	3.574E+03	1.034E+01	3.741E+00	1.034E+01	1.074E-01	-1.564E+03
PERM	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PERT	MJ	3.574E+03	1.034E+01	3.991E+00	1.084E+01	8.574E-01	-1.564E+03
PENRE	MJ	3.595E+04	2.488E+02	1.916E+02	2.488E+02	6.675E+00	-1.724E+04
PENRM	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PENRT	MJ	3.595E+04	2.488E+02	1.918E+02	2.493E+02	7.425E+00	-1.724E+04
SM	kg	1.641E+02	1.448E-02	3.522E-02	1.448E-02	-7.977E-02	-2.453E+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	2.249E+01	3.397E-02	3.332E-02	3.397E-02	6.062E-03	-1.556E+01
HW	kg	9.645E+01	4.606E-02	6.339E-02	4.606E-02	2.283E-03	-6.370E+01
NHW	kg	5.090E+02	1.439E-01	5.387E+00	1.439E-01	1.253E-02	-3.774E+02
RW	kg	1.193E-01	8.992E-05	2.937E-04	8.992E-05	1.941E-05	-1.120E-01
REUSE	kg	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RECYCLE	kg	5.019E+00	1.889E-02	3.789E-02	1.889E-02	3.204E-03	-6.734E+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	3.153E+03	2.151E+01	1.182E+01	2.151E+01	6.145E-02	-1.286E+03
GWP - fossil	kg CO ₂ eq	3.135E+03	2.151E+01	1.180E+01	2.151E+01	6.138E-02	-1.283E+03
GWP - biogenic	kg CO ₂ eq	-9.958E+00	7.403E-04	1.011E-02	7.403E-04	3.515E-05	-2.739E+00
GWP - luluc	kg CO ₂ eq	2.725E+01	2.503E-03	5.667E-03	2.503E-03	3.706E-05	-8.523E-01
GWP - GHG	kg CO ₂ eq	3.167E+03	2.151E+01	1.181E+01	2.151E+01	6.144E-02	-1.285E+03
ODP	kg CFC-11 eq	5.158E-05	3.814E-07	2.573E-07	3.814E-07	1.778E-09	-2.244E-05
POCP	kg NMVOC eq	1.422E+01	2.197E-01	5.904E-02	2.197E-01	6.624E-04	-6.115E+00
AP	mol H+ eq	1.415E+01	1.576E-01	3.893E-02	1.576E-01	4.625E-04	-5.804E+00
EP - freshwater	kg P eq	1.075E+00	1.435E-03	8.309E-04	1.435E-03	5.112E-06	-6.249E-01
EP - marine	kg N eq	3.399E+00	6.601E-02	1.342E-02	6.601E-02	1.776E-04	-1.329E+00
EP - terrestrial	mol N eq	3.494E+01	7.171E-01	1.418E-01	7.171E-01	1.903E-03	-1.349E+01
WDP	m ³ depriv.	6.433E+02	9.842E-01	7.327E-01	9.842E-01	6.757E-02	9.393E+01
ADP - F	MJ	3.464E+04	2.861E+02	1.692E+02	2.861E+02	1.530E+00	-1.357E+04
ADP - MM	kg Sb eq	5.718E-02	9.525E-06	3.574E-05	9.525E-06	8.523E-08	-9.227E-03
PERE	MJ	5.379E+03	1.064E+01	3.230E+00	1.064E+01	1.699E-02	-1.517E+03
PERM	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PERT	MJ	5.379E+03	1.064E+01	3.230E+00	1.064E+01	1.699E-02	-1.517E+03
PENRE	MJ	4.159E+04	2.959E+02	1.682E+02	2.959E+02	1.523E+00	-1.675E+04
PENRM	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PENRT	MJ	4.159E+04	2.959E+02	1.682E+02	2.959E+02	1.523E+00	-1.675E+04
SM	kg	2.243E+02	1.446E-02	2.516E-02	1.446E-02	3.684E-04	-2.380E+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	3.327E+01	3.790E-02	3.032E-02	3.790E-02	1.633E-03	-1.500E+01
HW	kg	1.313E+02	5.914E-02	1.064E-01	5.914E-02	1.657E-03	-8.076E+01
NHW	kg	6.958E+02	1.918E-01	1.077E+01	1.918E-01	1.663E-02	-4.985E+02
RW	kg	1.621E-01	8.956E-05	2.023E-04	8.956E-05	2.393E-06	-1.086E-01
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	1.877E-02	2.845E-02	1.877E-02	6.035E-04	-6.530E+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	2.808E+03	1.866E+01	1.391E+01	1.866E+01	2.612E-01	-1.313E+03
GWP - fossil	kg CO ₂ eq	2.810E+03	1.866E+01	1.389E+01	1.866E+01	2.608E-01	-1.309E+03
GWP - biogenic	kg CO ₂ eq	-3.740E+00	7.691E-05	1.233E-02	7.691E-05	2.565E-04	-2.797E+00
GWP - luluc	kg CO ₂ eq	1.424E+00	2.182E-03	6.717E-03	2.182E-03	1.595E-04	-8.702E-01
GWP - GHG	kg CO ₂ eq	2.814E+03	1.867E+01	1.390E+01	1.867E+01	2.617E-01	-1.312E+03
ODP	kg CFC-11 eq	4.234E-05	3.362E-07	3.024E-07	3.362E-07	6.954E-09	-2.291E-05
POCP	kg NMVOC eq	1.293E+01	1.801E-01	6.826E-02	1.801E-01	2.544E-03	-6.243E+00
AP	mol H ⁺ eq	1.225E+01	1.311E-01	4.545E-02	1.311E-01	1.780E-03	-5.925E+00
EP - freshwater	kg P eq	9.595E-01	1.349E-03	9.736E-04	1.349E-03	2.563E-05	-6.380E-01
EP - marine	kg N eq	2.992E+00	5.371E-02	1.564E-02	5.371E-02	6.861E-04	-1.357E+00
EP - terrestrial	mol N eq	3.170E+01	5.834E-01	1.652E-01	5.834E-01	7.352E-03	-1.377E+01
WDP	m ³ depriv.	4.624E+02	9.046E-01	8.226E-01	9.046E-01	2.059E-01	9.590E+01
ADP - F	MJ	3.032E+04	2.488E+02	1.976E+02	2.488E+02	5.696E+00	-1.386E+04
ADP - MM	kg Sb eq	1.379E-02	8.535E-06	4.372E-05	8.535E-06	4.918E-07	-9.420E-03
PERE	MJ	3.718E+03	1.040E+01	3.840E+00	1.040E+01	8.963E-02	-1.549E+03
PERM	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PERT	MJ	3.718E+03	1.040E+01	4.040E+00	1.080E+01	6.896E-01	-1.549E+03
PENRE	MJ	3.571E+04	2.583E+02	1.961E+02	2.583E+02	5.644E+00	-1.708E+04
PENRM	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PENRT	MJ	3.571E+04	2.583E+02	1.963E+02	2.587E+02	6.244E+00	-1.708E+04
SM	kg	1.787E+02	1.448E-02	2.818E-02	1.448E-02	-6.374E-02	-2.429E+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	1.780E+01	3.476E-02	3.380E-02	3.476E-02	5.177E-03	-1.538E+01
HW	kg	1.051E+02	4.867E-02	5.071E-02	4.867E-02	2.158E-03	-6.679E+01
NHW	kg	5.524E+02	1.535E-01	4.310E+00	1.535E-01	1.335E-02	-3.997E+02
RW	kg	1.305E-01	8.985E-05	2.350E-04	8.985E-05	1.601E-05	-1.109E-01
REUSE	kg	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RECYCLE	kg	5.285E+00	1.886E-02	3.031E-02	1.886E-02	2.684E-03	-6.667E+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	2.391E+03	2.151E+01	1.182E+01	2.151E+01	6.145E-02	-1.265E+03
GWP - fossil	kg CO ₂ eq	2.395E+03	2.151E+01	1.180E+01	2.151E+01	6.138E-02	-1.262E+03
GWP - biogenic	kg CO ₂ eq	-5.056E+00	7.403E-04	1.011E-02	7.403E-04	3.515E-05	-2.695E+00
GWP - luluc	kg CO ₂ eq	1.273E+00	2.503E-03	5.667E-03	2.503E-03	3.706E-05	-8.385E-01
GWP - GHG	kg CO ₂ eq	2.399E+03	2.151E+01	1.181E+01	2.151E+01	6.144E-02	-1.264E+03
ODP	kg CFC-11 eq	3.295E-05	3.814E-07	2.573E-07	3.814E-07	1.778E-09	-2.208E-05
POCP	kg NMVOC eq	1.091E+01	2.197E-01	5.904E-02	2.197E-01	6.624E-04	-6.016E+00
AP	mol H+ eq	1.038E+01	1.576E-01	3.893E-02	1.576E-01	4.625E-04	-5.710E+00
EP - freshwater	kg P eq	8.271E-01	1.435E-03	8.309E-04	1.435E-03	5.112E-06	-6.148E-01
EP - marine	kg N eq	2.568E+00	6.601E-02	1.342E-02	6.601E-02	1.776E-04	-1.308E+00
EP - terrestrial	mol N eq	2.724E+01	7.171E-01	1.418E-01	7.171E-01	1.903E-03	-1.327E+01
WDP	m ³ depriv.	3.529E+02	9.842E-01	7.327E-01	9.842E-01	6.757E-02	9.241E+01
ADP - F	MJ	2.488E+04	2.861E+02	1.692E+02	2.861E+02	1.530E+00	-1.335E+04
ADP - MM	kg Sb eq	1.203E-02	9.525E-06	3.574E-05	9.525E-06	8.523E-08	-9.077E-03
PERE	MJ	4.045E+03	1.064E+01	3.230E+00	1.064E+01	1.699E-02	-1.493E+03
PERM	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PERT	MJ	4.045E+03	1.064E+01	3.230E+00	1.064E+01	1.699E-02	-1.493E+03
PENRE	MJ	3.056E+04	2.959E+02	1.682E+02	2.959E+02	1.523E+00	-1.648E+04
PENRM	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PENRT	MJ	3.056E+04	2.959E+02	1.682E+02	2.959E+02	1.523E+00	-1.648E+04
SM	kg	2.349E+02	1.446E-02	2.516E-02	1.446E-02	3.684E-04	-2.341E+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	1.705E+01	3.790E-02	3.033E-02	3.790E-02	1.633E-03	-1.476E+01
HW	kg	1.153E+02	5.914E-02	1.064E-01	5.914E-02	1.657E-03	-7.945E+01
NHW	kg	6.090E+02	1.918E-01	1.077E+01	1.918E-01	1.663E-02	-4.905E+02
RW	kg	1.597E-01	8.956E-05	2.023E-04	8.956E-05	2.393E-06	-1.068E-01
REUSE	kg	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RECYCLE	kg	4.867E+00	1.877E-02	2.845E-02	1.877E-02	6.035E-04	-6.424E+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	2.448E+03	2.151E+01	1.524E+01	2.151E+01	6.145E-02	-1.324E+03
GWP - fossil	kg CO ₂ eq	2.452E+03	2.151E+01	1.522E+01	2.151E+01	6.138E-02	-1.320E+03
GWP - biogenic	kg CO ₂ eq	-5.224E+00	7.403E-04	1.376E-02	7.403E-04	3.515E-05	-2.819E+00
GWP - luluc	kg CO ₂ eq	1.262E+00	2.503E-03	7.387E-03	2.503E-03	3.706E-05	-8.772E-01
GWP - GHG	kg CO ₂ eq	2.456E+03	2.151E+01	1.523E+01	2.151E+01	6.144E-02	-1.322E+03
ODP	kg CFC-11 eq	3.368E-05	3.814E-07	3.311E-07	3.814E-07	1.778E-09	-2.310E-05
POCP	kg NMVOC eq	1.144E+01	2.197E-01	7.411E-02	2.197E-01	6.624E-04	-6.294E+00
AP	mol H+ eq	1.102E+01	1.576E-01	4.961E-02	1.576E-01	4.625E-04	-5.974E+00
EP - freshwater	kg P eq	8.751E-01	1.435E-03	1.065E-03	1.435E-03	5.112E-06	-6.432E-01
EP - marine	kg N eq	2.668E+00	6.601E-02	1.706E-02	6.601E-02	1.776E-04	-1.368E+00
EP - terrestrial	mol N eq	2.833E+01	7.171E-01	1.802E-01	7.171E-01	1.903E-03	-1.389E+01
WDP	m ³ depriv.	3.704E+02	9.842E-01	8.791E-01	9.842E-01	6.757E-02	9.668E+01
ADP - F	MJ	2.570E+04	2.861E+02	2.157E+02	2.861E+02	1.530E+00	-1.397E+04
ADP - MM	kg Sb eq	1.254E-02	9.525E-06	4.885E-05	9.525E-06	8.523E-08	-9.497E-03
PERE	MJ	3.980E+03	1.064E+01	4.230E+00	1.064E+01	1.699E-02	-1.562E+03
PERM	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PERT	MJ	3.980E+03	1.064E+01	4.230E+00	1.064E+01	1.699E-02	-1.562E+03
PENRE	MJ	3.171E+04	2.959E+02	2.142E+02	2.959E+02	1.523E+00	-1.724E+04
PENRM	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PENRT	MJ	3.171E+04	2.959E+02	2.142E+02	2.959E+02	1.523E+00	-1.724E+04
SM	kg	2.046E+02	1.446E-02	0.000E+00	1.446E-02	3.684E-04	-2.449E+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	1.815E+01	3.790E-02	3.573E-02	3.790E-02	1.633E-03	-1.544E+01
HW	kg	1.188E+02	5.914E-02	0.000E+00	5.914E-02	1.657E-03	-8.312E+01
NHW	kg	6.272E+02	1.918E-01	0.000E+00	1.918E-01	1.663E-02	-5.131E+02
RW	kg	1.459E-01	8.956E-05	0.000E+00	8.956E-05	2.393E-06	-1.118E-01
REUSE	kg	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RECYCLE	kg	5.150E+00	1.877E-02	0.000E+00	1.877E-02	6.035E-04	-6.721E+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	2.476E+03	2.151E+01	1.296E+01	2.151E+01	6.145E-02	-1.183E+03
GWP - fossil	kg CO ₂ eq	2.480E+03	2.151E+01	1.294E+01	2.151E+01	6.138E-02	-1.179E+03
GWP - biogenic	kg CO ₂ eq	-4.649E+00	7.403E-04	1.132E-02	7.403E-04	3.515E-05	-2.518E+00
GWP - luluc	kg CO ₂ eq	1.292E+00	2.503E-03	6.241E-03	2.503E-03	3.706E-05	-7.836E-01
GWP - GHG	kg CO ₂ eq	2.484E+03	2.151E+01	1.295E+01	2.151E+01	6.144E-02	-1.181E+03
ODP	kg CFC-11 eq	3.272E-05	3.814E-07	2.819E-07	3.814E-07	1.778E-09	-2.063E-05
POCP	kg NMVOC eq	1.099E+01	2.197E-01	6.407E-02	2.197E-01	6.624E-04	-5.622E+00
AP	mol H+ eq	1.073E+01	1.576E-01	4.249E-02	1.576E-01	4.625E-04	-5.336E+00
EP - freshwater	kg P eq	8.248E-01	1.435E-03	9.088E-04	1.435E-03	5.112E-06	-5.745E-01
EP - marine	kg N eq	2.598E+00	6.601E-02	1.463E-02	6.601E-02	1.776E-04	-1.222E+00
EP - terrestrial	mol N eq	2.756E+01	7.171E-01	1.546E-01	7.171E-01	1.903E-03	-1.240E+01
WDP	m ³ depriv.	3.666E+02	9.842E-01	7.815E-01	9.842E-01	6.757E-02	8.635E+01
ADP - F	MJ	2.601E+04	2.861E+02	1.847E+02	2.861E+02	1.530E+00	-1.248E+04
ADP - MM	kg Sb eq	1.164E-02	9.525E-06	4.011E-05	9.525E-06	8.523E-08	-8.483E-03
PERE	MJ	4.036E+03	1.064E+01	3.563E+00	1.064E+01	1.699E-02	-1.395E+03
PERM	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PERT	MJ	4.036E+03	1.064E+01	3.563E+00	1.064E+01	1.699E-02	-1.395E+03
PENRE	MJ	3.181E+04	2.959E+02	1.835E+02	2.959E+02	1.523E+00	-1.540E+04
PENRM	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PENRT	MJ	3.181E+04	2.959E+02	1.835E+02	2.959E+02	1.523E+00	-1.540E+04
SM	kg	2.774E+02	1.446E-02	1.677E-02	1.446E-02	3.684E-04	-2.188E+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	1.822E+01	3.790E-02	3.213E-02	3.790E-02	1.633E-03	-1.379E+01
HW	kg	1.323E+02	5.914E-02	7.095E-02	5.914E-02	1.657E-03	-7.425E+01
NHW	kg	6.727E+02	1.918E-01	7.182E+00	1.918E-01	1.663E-02	-4.583E+02
RW	kg	1.887E-01	8.956E-05	1.349E-04	8.956E-05	2.393E-06	-9.983E-02
REUSE	kg	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RECYCLE	kg	5.389E+00	1.877E-02	1.897E-02	1.877E-02	6.035E-04	-6.003E+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 SHEET (FULL HARD)

ID	U.o.M.	A1-A3	C1	C2	C3	C4	D
GWP - t	kg CO ₂ eq	2.619E+03	2.151E+01	8.402E+00	2.151E+01	6.145E-02	-1.306E+03
GWP - fossil	kg CO ₂ eq	2.623E+03	2.151E+01	8.391E+00	2.151E+01	6.138E-02	-1.302E+03
GWP - biogenic	kg CO ₂ eq	-5.259E+00	7.403E-04	6.454E-03	7.403E-04	3.515E-05	-2.781E+00
GWP - luluc	kg CO ₂ eq	1.311E+00	2.503E-03	3.947E-03	2.503E-03	3.706E-05	-8.654E-01
GWP - GHG	kg CO ₂ eq	2.627E+03	2.151E+01	8.398E+00	2.151E+01	6.144E-02	-1.304E+03
ODP	kg CFC-11 eq	3.710E-05	3.814E-07	1.836E-07	3.814E-07	1.778E-09	-2.279E-05
POCP	kg NMVOC eq	1.207E+01	2.197E-01	4.397E-02	2.197E-01	6.624E-04	-6.209E+00
AP	mol H+ eq	1.155E+01	1.576E-01	2.824E-02	1.576E-01	4.625E-04	-5.893E+00
EP - freshwater	kg P eq	9.131E-01	1.435E-03	5.972E-04	1.435E-03	5.112E-06	-6.345E-01
EP - marine	kg N eq	2.797E+00	6.601E-02	9.777E-03	6.601E-02	1.776E-04	-1.349E+00
EP - terrestrial	mol N eq	2.975E+01	7.171E-01	1.033E-01	7.171E-01	1.903E-03	-1.370E+01
WDP	m ³ depriv.	4.082E+02	9.842E-01	5.864E-01	9.842E-01	6.757E-02	9.537E+01
ADP - F	MJ	2.755E+04	2.861E+02	1.227E+02	2.861E+02	1.530E+00	-1.378E+04
ADP - MM	kg Sb eq	1.315E-02	9.525E-06	2.263E-05	9.525E-06	8.523E-08	-9.369E-03
PERE	MJ	4.331E+03	1.064E+01	2.231E+00	1.064E+01	1.699E-02	-1.541E+03
PERM	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PERT	MJ	4.331E+03	1.064E+01	2.231E+00	1.064E+01	1.699E-02	-1.541E+03
PENRE	MJ	3.392E+04	2.959E+02	1.222E+02	2.959E+02	1.523E+00	-1.701E+04
PENRM	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PENRT	MJ	3.392E+04	2.959E+02	1.222E+02	2.959E+02	1.523E+00	-1.701E+04
SM	kg	2.141E+02	1.446E-02	5.032E-02	1.446E-02	3.684E-04	-2.416E+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	1.994E+01	3.790E-02	2.493E-02	3.790E-02	1.633E-03	-1.523E+01
HW	kg	1.248E+02	5.914E-02	2.129E-01	5.914E-02	1.657E-03	-8.200E+01
NHW	kg	6.585E+02	1.918E-01	2.155E+01	1.918E-01	1.663E-02	-5.062E+02
RW	kg	1.534E-01	8.956E-05	4.046E-04	8.956E-05	2.393E-06	-1.103E-01
REUSE	kg	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RECYCLE	kg	5.562E+00	1.877E-02	5.691E-02	1.877E-02	6.035E-04	-6.630E+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	2.791E+03	2.151E+01	1.182E+01	2.151E+01	6.145E-02	-1.286E+03
GWP - fossil	kg CO ₂ eq	2.795E+03	2.151E+01	1.180E+01	2.151E+01	6.138E-02	-1.283E+03
GWP - biogenic	kg CO ₂ eq	-4.596E+00	7.403E-04	1.011E-02	7.403E-04	3.515E-05	-2.739E+00
GWP - luluc	kg CO ₂ eq	1.394E+00	2.503E-03	5.667E-03	2.503E-03	3.706E-05	-8.523E-01
GWP - GHG	kg CO ₂ eq	2.799E+03	2.151E+01	1.181E+01	2.151E+01	6.144E-02	-1.285E+03
ODP	kg CFC-11 eq	4.213E-05	3.814E-07	2.573E-07	3.814E-07	1.778E-09	-2.244E-05
POCP	kg NMVOC eq	1.287E+01	2.197E-01	5.904E-02	2.197E-01	6.624E-04	-6.115E+00
AP	mol H+ eq	1.221E+01	1.576E-01	3.893E-02	1.576E-01	4.625E-04	-5.804E+00
EP - freshwater	kg P eq	9.606E-01	1.435E-03	8.309E-04	1.435E-03	5.112E-06	-6.249E-01
EP - marine	kg N eq	2.974E+00	6.601E-02	1.342E-02	6.601E-02	1.776E-04	-1.329E+00
EP - terrestrial	mol N eq	3.153E+01	7.171E-01	1.418E-01	7.171E-01	1.903E-03	-1.349E+01
WDP	m ³ depriv.	4.469E+02	9.842E-01	7.327E-01	9.842E-01	6.757E-02	9.393E+01
ADP - F	MJ	3.010E+04	2.861E+02	1.692E+02	2.861E+02	1.530E+00	-1.357E+04
ADP - MM	kg Sb eq	1.381E-02	9.525E-06	3.574E-05	9.525E-06	8.523E-08	-9.227E-03
PERE	MJ	4.620E+03	1.064E+01	3.230E+00	1.064E+01	1.699E-02	-1.517E+03
PERM	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PERT	MJ	4.620E+03	1.064E+01	3.230E+00	1.064E+01	1.699E-02	-1.517E+03
PENRE	MJ	3.684E+04	2.959E+02	1.682E+02	2.959E+02	1.523E+00	-1.675E+04
PENRM	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PENRT	MJ	3.684E+04	2.959E+02	1.682E+02	2.959E+02	1.523E+00	-1.675E+04
SM	kg	2.243E+02	1.446E-02	2.516E-02	1.446E-02	3.684E-04	-2.380E+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	2.170E+01	3.790E-02	3.033E-02	3.790E-02	1.633E-03	-1.500E+01
HW	kg	1.312E+02	5.914E-02	1.064E-01	5.914E-02	1.657E-03	-8.076E+01
NHW	kg	6.904E+02	1.918E-01	1.077E+01	1.918E-01	1.663E-02	-4.985E+02
RW	kg	1.621E-01	8.956E-05	2.023E-04	8.956E-05	2.393E-06	-1.086E-01
REUSE	kg	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RECYCLE	kg	6.011E+00	1.877E-02	2.845E-02	1.877E-02	6.035E-04	-6.530E+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

GALVANISED SHEET METAL

ID	U.o.M.	A1-A3	C1	C2	C3	C4	D
GWP - t	kg CO ₂ eq	2.867E+03	2.151E+01	1.296E+01	2.151E+01	6.145E-02	-1.297E+03
GWP - fossil	kg CO ₂ eq	2.867E+03	2.151E+01	1.294E+01	2.151E+01	6.138E-02	-1.294E+03
GWP - biogenic	kg CO ₂ eq	-1.850E+00	7.403E-04	1.132E-02	7.403E-04	3.515E-05	-2.763E+00
GWP - luluc	kg CO ₂ eq	1.659E+00	2.503E-03	6.241E-03	2.503E-03	3.706E-05	-8.597E-01
GWP - GHG	kg CO ₂ eq	2.872E+03	2.151E+01	1.295E+01	2.151E+01	6.144E-02	-1.296E+03
ODP	kg CFC-11 eq	4.369E-05	3.814E-07	2.819E-07	3.814E-07	1.778E-09	-2.264E-05
POCP	kg NMVOC eq	1.313E+01	2.197E-01	6.407E-02	2.197E-01	6.624E-04	-6.168E+00
AP	mol H+ eq	1.267E+01	1.576E-01	4.249E-02	1.576E-01	4.625E-04	-5.854E+00
EP - freshwater	kg P eq	1.023E+00	1.435E-03	9.088E-04	1.435E-03	5.112E-06	-6.303E-01
EP - marine	kg N eq	3.099E+00	6.601E-02	1.463E-02	6.601E-02	1.776E-04	-1.341E+00
EP - terrestrial	mol N eq	3.275E+01	7.171E-01	1.546E-01	7.171E-01	1.903E-03	-1.361E+01
WDP	m ³ depriv.	5.075E+02	9.842E-01	7.815E-01	9.842E-01	6.757E-02	9.475E+01
ADP - F	MJ	3.084E+04	2.861E+02	1.847E+02	2.861E+02	1.530E+00	-1.369E+04
ADP - MM	kg Sb eq	5.537E-02	9.525E-06	4.011E-05	9.525E-06	8.523E-08	-9.307E-03
PERE	MJ	4.728E+03	1.064E+01	3.563E+00	1.064E+01	1.699E-02	-1.531E+03
PERM	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PERT	MJ	4.728E+03	1.064E+01	3.563E+00	1.064E+01	1.699E-02	-1.531E+03
PENRE	MJ	3.746E+04	2.959E+02	1.835E+02	2.959E+02	1.523E+00	-1.689E+04
PENRM	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PENRT	MJ	3.746E+04	2.959E+02	1.835E+02	2.959E+02	1.523E+00	-1.689E+04
SM	kg	2.186E+02	1.446E-02	1.677E-02	1.446E-02	3.684E-04	-2.400E+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	2.984E+01	3.790E-02	3.213E-02	3.790E-02	1.633E-03	-1.513E+01
HW	kg	1.278E+02	5.914E-02	7.095E-02	5.914E-02	1.657E-03	-8.147E+01
NHW	kg	6.753E+02	1.918E-01	7.182E+00	1.918E-01	1.663E-02	-5.029E+02
RW	kg	1.577E-01	8.956E-05	1.349E-04	8.956E-05	2.393E-06	-1.095E-01
REUSE	kg	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RECYCLE	kg	5.937E+00	1.877E-02	1.897E-02	1.877E-02	6.035E-04	-6.587E+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	3.185E+03	2.151E+01	1.296E+01	2.151E+01	6.145E-02	-1.277E+03
GWP - fossil	kg CO ₂ eq	3.171E+03	2.151E+01	1.294E+01	2.151E+01	6.138E-02	-1.273E+03
GWP - biogenic	kg CO ₂ eq	-1.360E+01	7.403E-04	1.132E-02	7.403E-04	3.515E-05	-2.719E+00
GWP - luluc	kg CO ₂ eq	2.742E+01	2.503E-03	6.241E-03	2.503E-03	3.706E-05	-8.462E-01
GWP - GHG	kg CO ₂ eq	3.203E+03	2.151E+01	1.295E+01	2.151E+01	6.144E-02	-1.275E+03
ODP	kg CFC-11 eq	5.227E-05	3.814E-07	2.819E-07	3.814E-07	1.778E-09	-2.228E-05
POCP	kg NMVOC eq	1.438E+01	2.197E-01	6.407E-02	2.197E-01	6.624E-04	-6.071E+00
AP	mol H+ eq	1.431E+01	1.576E-01	4.249E-02	1.576E-01	4.625E-04	-5.762E+00
EP - freshwater	kg P eq	1.088E+00	1.435E-03	9.088E-04	1.435E-03	5.112E-06	-6.204E-01
EP - marine	kg N eq	3.441E+00	6.601E-02	1.463E-02	6.601E-02	1.776E-04	-1.319E+00
EP - terrestrial	mol N eq	3.533E+01	7.171E-01	1.546E-01	7.171E-01	1.903E-03	-1.339E+01
WDP	m ³ depriv.	6.503E+02	9.842E-01	7.815E-01	9.842E-01	6.757E-02	9.325E+01
ADP - F	MJ	3.507E+04	2.861E+02	1.847E+02	2.861E+02	1.530E+00	-1.348E+04
ADP - MM	kg Sb eq	5.755E-02	9.525E-06	4.011E-05	9.525E-06	8.523E-08	-9.160E-03
PERE	MJ	5.646E+03	1.064E+01	3.563E+00	1.064E+01	1.699E-02	-1.506E+03
PERM	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PERT	MJ	5.646E+03	1.064E+01	3.563E+00	1.064E+01	1.699E-02	-1.506E+03
PENRE	MJ	4.207E+04	2.959E+02	1.835E+02	2.959E+02	1.523E+00	-1.663E+04
PENRM	MJ	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PENRT	MJ	4.207E+04	2.959E+02	1.835E+02	2.959E+02	1.523E+00	-1.663E+04
SM	kg	2.288E+02	1.446E-02	1.677E-02	1.446E-02	3.684E-04	-2.363E+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	3.405E+01	3.790E-02	3.213E-02	3.790E-02	1.633E-03	-1.489E+01
HW	kg	1.322E+02	5.914E-02	7.095E-02	5.914E-02	1.657E-03	-8.018E+01
NHW	kg	7.024E+02	1.918E-01	7.182E+00	1.918E-01	1.663E-02	-4.950E+02
RW	kg	1.637E-01	8.956E-05	1.349E-04	8.956E-05	2.393E-06	-1.078E-01
REUSE	kg	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RECYCLE	kg	6.452E+00	1.877E-02	1.897E-02	1.877E-02	6.035E-04	-6.483E+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 information

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. Shearing and leveling activities have a marginal impact on the final result.

The impacts of energy consumption determined by the processes carried out within the company boundaries are often marginal compared to the impact associated with the supply of raw materials.

SUSTAINABILITY

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 89.1% in line with what is indicated in the "Special waste report" of ISPRA - No. 389/2023.

MANAGEMENT SYSTEM

With reference to the management systems used by the company, it is emphasized that the presence of an environmental management system (certified pursuant to UNI EN ISO 14001:2015) and safety (certified pursuant to UNI ISO 45001:2018) testify to the company's commitment to pursue the continuous improvement of its environmental and safety performance, for example by properly managing the hazardous substances, the waste produced by its business as well as maintaining the pollutants emitted into the atmosphere as well as water discharges. Within the environmental management system there is also a specific data management procedure for the study of the product life cycle. Year after year, the company plans new improvement objectives aimed at increasing its performance.

The company has implemented an energy management system certified in accordance with the UNI CEI EN ISO 50001:2018 standard to identify the most relevant plants in terms of energy as well as define opportunities for improvement in order to reduce the energy consumption determined by the carrying out its business.

The company has implemented a Product Carbon Footprint - Systematic Approach management system according to ISO 14067 in order to improve the quantification and monitoring of GHG emissions and address environmental challenges in a proactive manner.



Carbon steel coils, strips and sheets for coils

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 15804:2012;

Ecoinvent database v.3.9.1- January 2023;

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 2022 Association of Issuing Bodies "European Residual Mixes - Results of the calculation of Residual Mixes for the calendar year 2022" - version 1.0, 2023-06-01;

ISPRA " Special waste report" - n° 389/2023 - Ed. 2023;

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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