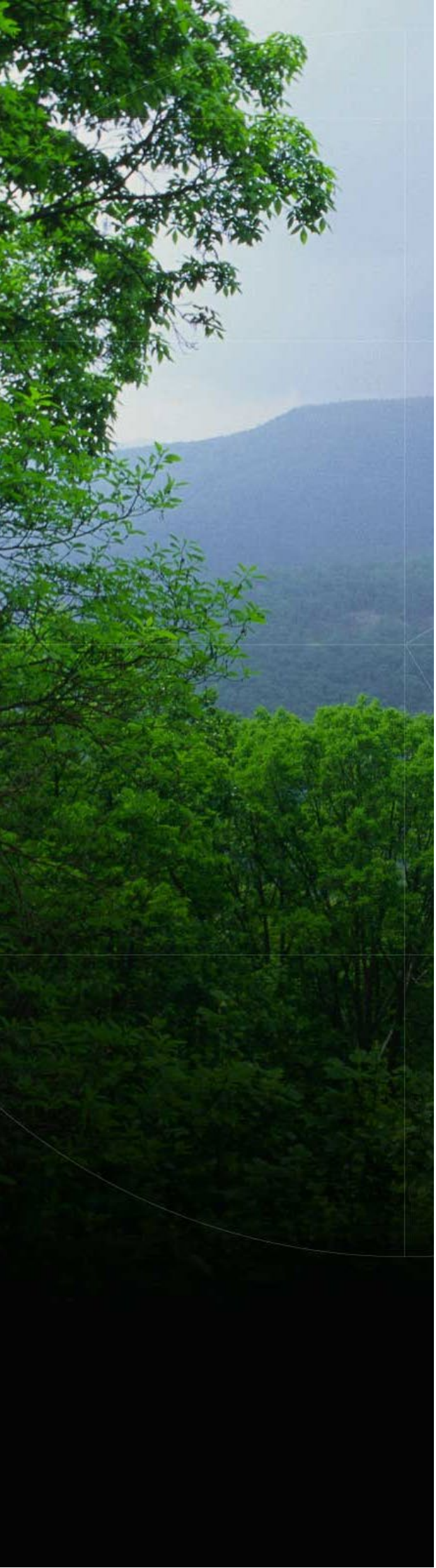


EPD
INTERNATIONAL EPD SYSTEM

CERTIFICATE

EPD REGISTRATION

This document confirms that

YIEH PHUI (CHINA) TECHNOMATERIAL CO., LTD.

has registered an Environmental Product Declaration (EPD) for

HOT-DIP ZN-AL-MG COATED GREEN STEEL SHEET IN COIL (RC-GM)

under **EPD-IES-0022779**
in the International EPD System

The EPD has been developed in accordance with ISO 14025, the General Programme Instructions, and the Product Category Rules 2019:14 of the International EPD System.
The verification was carried out by Thomas P. Gloria.

This document remains valid until 2030/5/27, unless the EPD is deregistered from the International EPD System prior to that date.

Sebastiaan Stiller
CEO of the International EPD System
Stockholm, Sweden
2025-05-28

Environmental Product Declaration

In accordance with ISO 14025:2006 and EN 15804:2012+A2:2019/AC:2021 for:

Hot-Dip Zn-Al-Mg Coated Green Steel Sheet In Coil (RC-GM)

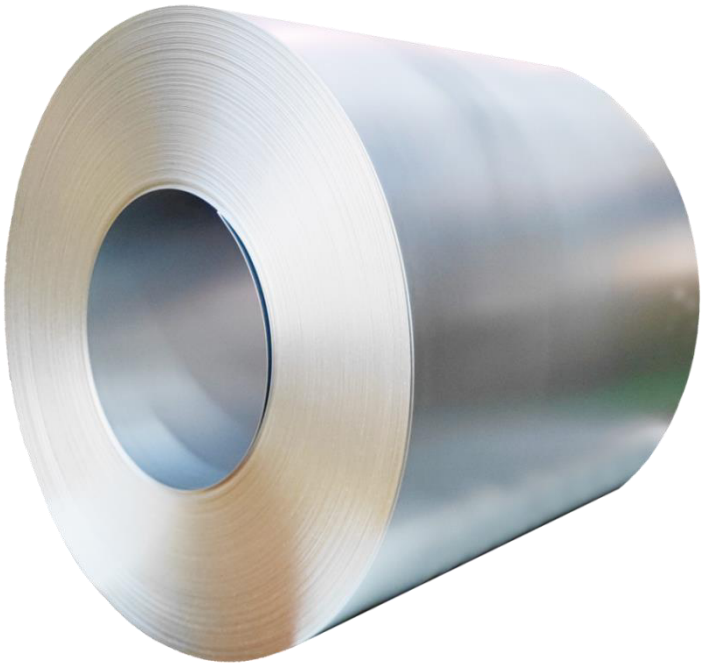
from

Yieh Phui (China) Technomaterial Co., Ltd.

炸辉(中国)科技材料有限公司
YIEH PHUI (CHINA) TECHNOMATERIAL CO., LTD.

Programme:	The International EPD® System, www.environdec.com
Programme operator:	EPD International AB
EPD registration number:	EPD-IES-0022779:001
Publication date:	2025-05-28
Valid until:	2030-05-27

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



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

Accountabilities for PCR, LCA and independent, third-party verification
Product Category Rules (PCR)
CEN standard EN 15804 serves as the Core Product Category Rules (PCR)
Product Category Rules (PCR): *PCR 2019:14 Construction products (EN 15804: A2) Version 1.3.4, UN CPC code: 41231*
PCR review was conducted by: *The Technical Committee of the International EPD®System. See www.environdec.com/TC for a list of members. Review chair: Claudia A. Peña, University of Concepción, Chile. The review panel may be contacted via the Secretariat www.environdec.com/contact*
Life Cycle Assessment (LCA)
LCA accountability: *AnKang, CECEP Eco Product Development Research Center*
Third-party verification
Independent third-party verification of the declaration and data, according to ISO 14025:2006, via: ☒ EPD verification by individual verifier Third-party verifier: <*Thomas Gloria, Industrial Ecology Consultants* > Approved by: The International EPD® System

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:

Yieh Phui (China) Technomaterial Co., Ltd.

Contact information:

Qiu Yijia;
E-Mail:16903@yiehphuichina.com

Description of the organisation:

Founded in January 2002, Yieh Phui (China) is committed to the professional manufacture of full-process coated steel products, which are exported to all over the world as well as to all provinces, cities and autonomous regions in China, and has become a model in the industry by virtue of its high-value-added, diversified and high-end products and the best services. Our products include pickled and oiled coils, cold rolled coils, various coated coils, color coated coils, color coated printed coils and other related products, which are widely used in a variety of fields, such as roofing and walling of new buildings, high-end decorative materials, animal husbandry, photovoltaic mounting materials, 3C products, and automotive and home appliance materials.

Product-related or management system-related certifications:

- Management system-related:
  ISO 9001, IECQ QC 080000, IATF 16949, IS0 14001, ISO 45001, ISO 50001.
- Product system-related:
  JIS Mark (Korean Standards Association; JIS G 3302, JIS G 3321, JIS G 3312, JIS G 3322, JIS G 3323);
  MS (SIRIM QAS International Sdn; MS 1196, MS 2657, MS 2651, etc.);
  BC 1: 2012(Det Norske Veritas; JIS, EN, ASTM, AS).

Name and location of production site:

Yieh Phui (China) Technomaterial Co., Ltd.

1, Yieh Phui Road, Riverside Industrial Park, Changshu Economic Development Zone, Suzhou, Jiangsu People's Republic of China ZIP:215536

More information:

http://www.yiehphuichina.com

Product information

Product name:

Hot-Dip Zn-Al-Mg Coated Green Steel Sheet In Coil (RC-GM)

Product identification:

PhuizerMax® are the registered name of Hot-Dip Zn-Al-Mg Coated Green Steel Sheet In Coil (RC-GM).

Product description:

- Hot-Dip Zn-Al-Mg Coated Green Steel Sheet In Coil (RC-GM) are produced by coating the surface of hot-rolled or cold-rolled steel coils with Zn-Al-Mg coating. This process utilizes the principle of the potential difference between Zn-Al-Mg and iron to provide corrosion resistance to the steel product. The Zn-Al-Mg coating acts as sacrificial protection, corroding first to shield the underlying steel or iron. According to the potential difference principle, when two different metals come into contact, the metal with lower potential will corrode faster, while the one with higher potential will be protected.
- Due to the Zn-Al-Mg coating with sacrificial anode protection mechanism, the product's lifespan is extended, offering excellent characteristics such as weather or corrosion resistance, adhesion, and formability. Additionally, it presents advantages like lower maintenance costs and reduced environmental pollution.
- Our products comply with the following standards: EN 10346.
- The general service life time of Yieh Phui (China) Hot-Dip Zn-Al-Mg Coated Green Steel Sheet In Coil (RC-GM) is about 10 years or above depend on coating mass.

UN CPC code:

41231

Geographical scope:

The product is produced at the Jiangsu province, China. Product use was excluded from the scope of environmental impact calculations in this study. For the end-of-life stage, the environmental impact was calculated based on product disposal statistics from the World Steel Association, 2020.

LCA information

Functional unit / declared unit:

1 metric ton (1,000 kg)

Reference service life:

Not applicable

Time representativeness:

The production foreground data are from 2023.11~2024.10, and the database background data are from 2024.

Database(s) and LCA software used:

Database used is mainly Ecoinvent 3.11. The LCA software used is openLCA 2.3.1

The reference package used for impact indicator is based on EF 3.1.

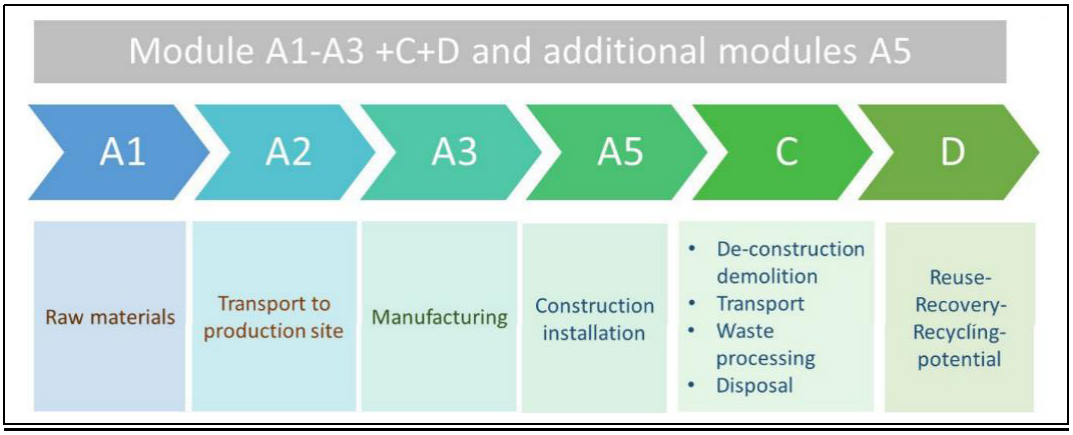
Characterization factors for GWP-GHG refer to IPCC 2021.

Description of system boundaries:

Cradle to gate with modules A5, C1–C4 and module D (A1–A3 + A5 + C + D). The life cycle stages A4, B1-B7 were excluded from the LCA study.

System diagram:

According to PCR 2019:14 (Version 1.3.4), cradle to gate with options, modules C1-C4, module D and with optional module A5 is selected for the LCA study. As the packaging contains more than 5% biogenic carbon module A5 shall be included at least for balancing out the emission of this carbon.



Manufacturing process:

- Pickling:

  Pickling of hot rolled steel coils to clean the surface of oil, oxides and other impurities.
- Rolling

  Rolling the pickled steel coil through a rolling mill to a target thickness.
- Pre-treatment and Annealing：

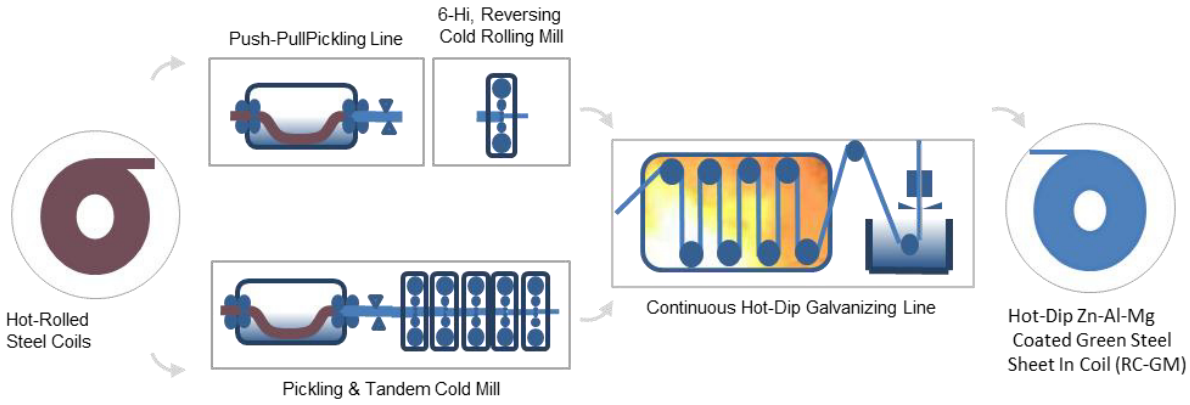
  Residual oil on the surface of the cold rolled or pickled strip from last process is cleaned off in the non-oxidizing direct flame furnace (NOF) or in electrolytic cleaning. The strip is then softened through recrystallization in the annealing furnace.
- Metallic coating：

  The thickness of the coating layer is precisely controlled by the air knife. Zinc and aluminium powder or atomized fog are blown on to the metallic coating layer. The surface spangle can be controlled through adjust the coating bath composition and cooling rate before it solidifies to produce normal, minimized or zero spangle.
- Skin-pass and Tension Levelling：

  To ensures the flatness of the strip and improves the surface uniformity.

- Surface Treatment：

  The surface of the coated strip is treated with passivation (Chromic acid) or anti-fingerprint chemicals to extend product's lifespan and to assist forming, stamping or drawing process.



Product characteristics:

- Excellent Weathering Resistance:

  The Zn-Al-Mg coated layer performs the coverage and sacrificial protection mechanism to protect base steel. The passivation or anti-fingerprint chemical treatment is extend product's lifespan.

- Good Adhesion:

  The thickness of brittle zinc-iron alloy layer at the interface of the steel base metal and the zinc layer is minimized, thereby improving the adhesion of the zinc coating. The strip can be used for various usages.

- Superb Paintability:

  The minimized or zero spangle and skin-passed surface is smooth and homogeneous, providing superb paintability.

Data quality:

Data quality represents the difference between the target representativeness of LCA research and the actual representativeness of data. In order to meet the requirements of data quality, the following aspects are mainly considered in this study:

1. Precision:

   Precision estimates the degree of reliability of primary data. In this study, all relevant foreground data is primary data, which is collected from on-site reviewing and supported by professional data input document.

2. Completeness:

   All relevant, specific processes are considered to represent each specific situation in order to make sure LCA model can accurately represent each production process and characterize respective process’s associated environmental burden in detail. All components need to meet the principle of cut-offs.

3. Consistency:

In order to figure out that the LCA methodology can be uniformly applied or not, various components' qualitative assessment is conducted. The primary data input provided by manufacturers is re-checked and recalculated.

4. Representativeness:

Representativeness means the referenced data and on-site data input must match the local geographical, temporal, and technological requirements. In this study, for all background processes representative primary data input based on specific industry averages which derived from various reliable databases and the data input for foreground processes all obtained from on-site product related precise investigation.

Treatment of missing data:

The report will record in which cases the data is not available or missing, Ecoinvent 3.11 database and some other relevant data were referred to.

Cut-off rules:

The standard ISO 14025 and the PCR -"2019:14 CONSTRUCTION PRODUCTS" indicate that the life cycle inventory data should include a minimum of 95% of the total inputs (materials and energy) for each stage. This cut-off rule does not apply for hazardous materials and substances. No such cut-off criteria have been taken into account in this study. No known flows were deliberately excluded that may cause significant change in the results in this study. The consumption and emissions of road and infrastructure of the manufacturing site and personnel related activities (travel, office operations and supplies are excluded from the study.

Allocation:

- Multi-input processes

  Yieh Phui (China) also produce other steel product in addition to target product included in this report. The manufacturer does not track its energy consumption or process materials in sufficient granularity to allow for a direct correlation to a particular product; therefore, onsite energy, emissions, waste, and process materials were allocated by mass of production.

- For externally sourced post-consumer scrap allocation

  Per PCR: the default assumption shall be that the end-of-waste state, where the value of the scrap is at its minimum, is reached when the scrap is generated and that it regains value as soon as it is collected and put in a waste container/skip. Any environmental burden from before this point is assigned to the previous product life cycle, and the environmental burdens of any subsequent transports or processing are assigned to the next product life cycle. In this study, scarp itself is zero burden, and the burden of subsequent transportation and reprocessing processes such as hot rolling is taken into account.

- Co-product allocation

The production process of the target product generates waste with some economic value (also considered as a co-product) with a small weight amount of less than 2.3% of the main product in all cases, but it is neglected in this study due to “cut-off ” allocation method is adopted.

- End-of-Life Allocation

  The recovered steel scrap generated during the C1-C4 stage that is not looped back to the manufacture (leaving product system that assumes have passed the end-of-waste state), goes to module D. To be conservative, the further downstream processes such as steel scrap be sorted and pressed into blocks and ready to be used for other specific purposes be included as burden in the module D. After that the recycled steel has been modelled to avoid use of primary materials (pig iron), the quality correction factor is assumed to be 0.7.

Power mix during production stage:

The data for the generation of electricity applied in A3 is electricity mixes on the market, namely the China East Power Grid Mix, medium voltage in the Ecoinvent 3.11 (cut-off) database. Its GWP-GHG impact is 0.7634 kgCO_2eq/kWh. The reference year of electricity dataset is 2021-2024.

LCA Scenarios and additional technical information:

- Production(A1-A3)

  The indirect material chromic acid was used in the production process in an amount of approximately 0.00003% which was not in the background database, so they were substituted with ‘market for chemical, inorganic’ from Econinvent database.

- Construction (A5):

  It has been assumed that for the construction phase for a steel product the use of the following machines is possible: lattice boom crane, forklift, hydraulic crane and crawler loader with construction machinery operation specific use that varies from 17 to 21 minutes per ton. This study assumes that half an hour of crane operation is performed per functional unit with a diesel mobile crane.

  The packaging that accompanies the target product is assumed to be classified as municipal waste and incinerated.

- Dismantling/demolition (C1):

  It has been assumed that for the demolition phase for a steel product is the same diesel consumption of construction stage (A5).

- Transport to waste processing (C2):

  This step includes the transport of waste product. The average distance was assumed 100 km by truck from demolition site to a waste or recycling area.

- Waste processing for reuse, recovery and/or recycling (C3):

  It is assumed that the product has reached the end-of-waste state without waste treatment after arriving at the waste disposal site. Recycling has already been calculated in module D.

- Disposal (C4):

  Based on the figures of Word Steel Association (WSA), the recycling rate of steel is around 95%.

Based on this, 5% of the steel is assumed to be landfilled and this landfilling impact is considered at this stage.

- Module D:

The credit includes the recycling burden and the credit of replacing virgin pig iron.

Scenario assumptions are provided in Table 2 and Table 3.

Table 2. End of life (C1-C4） scenario assumptions

NAME		VALUE	UNIT
Assumptions for scenario development (description of demolition, collection, recovery, disposal method and transportation)			
Demolition process (use diesel mobile Crane)	Fuel Consumption	8	liters/hour
	Working Time	0.5	hour/t
Waste transport	Lorry	/	/
	Distance	100	km
Collection process	Collected separately	1000	kg
	Collected with mixed construction waste	0	kg
Disposal	Reuse	0	kg
	Recycling	950	kg
	Landfill	50	kg
	Incineration	0	kg
	Incineration with energy recovery	0	kg
	Energy conversion efficiency rate	/	%
Removals of biogenic carbon (excluding packaging)		0	kg CO_2

Table 3. Reuse, recovery and/or recycling potentials (D), relevant scenario information

NAME	VALUE	UNIT
Scraps from waste treatment of waste steel structure from C3	950	kg
Replaced virgin pig iron in the next life cycle	665	kg

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

	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	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	X	ND	ND	ND	ND	ND	ND	ND	X	X	X	X	X
Geography	CN	CN	CN	ND	GLO	ND	ND	ND	ND	ND	ND	ND	GLO	GLO	GLO	GLO	GLO
Specific data used	＞90%			-	-	-	-	-	-	-	-	-	-	-	-	-	-
Variation – products	＜10%			-	-	-	-	-	-	-	-	-	-	-	-	-	-
Variation – sites	0%			-	-	-	-	-	-	-	-	-	-	-	-	-	-

Content information

Product components	Per 1 ton		
	Weight, kg	Post-consumer material, weight-%	Biogenic material, weight-% and kg C/per 1 ton
Recycled Hot rolled steel coil	9.75E+02	95.00%	0.00%
Zinc ingot	2.34E+01	0.00%	0.00%
Aluminum and Magnesium ingot	1.74E+00	0.00%	0.00%
TOTAL	1.00E+03	95.00%	0.00%
Packaging materials	**Weight, kg**	**Weight-% (versus the product)**	**Weight biogenic carbon, kg C/per 1 ton**
EVA	1.72E-01	0.017%	ND
PE board	1.41E-01	0.014%	ND
Wrapping paper	2.42E-01	0.024%	9.52E-02
Paper angle bead	1.29E-01	0.013%	3.40E-02
Pallet	3.89E-01	0.039%	1.92E-01
Paper sleeve	4.18E-01	0.042%	1.64E-01
Steel strip	8.82E-01	0.088%	ND
TOTAL	2.37E+00	0.237%	4.85E-01

Results of the environmental performance indicators

The estimated impact results are only relative statements, which do not indicate the endpoints of the impact categories, exceeding threshold values, safety margins and/or risks.

Mandatory impact category indicators according to EN 15804

Results per declared unit							
Indicator	**Unit**	**A1-A3**	**A5***	**C1**	**C2**	**C4**	**D**
GWP-total	kg $CO_{2\ eq}$	1.34E+03	1.84E+01	1.36E+01	1.61E+01	3.13E-01	-1.12E+03
GWP-luluc	kg $CO_{2\ eq}$	1.35E+00	7.53E-04	6.96E-04	7.45E-03	1.79E-04	-2.39E-01
GWP-biogenic	kg $CO_{2\ eq}$	-8.98E-01	3.50E+00	1.46E-03	5.51E-03	1.40E-04	5.65E+00
GWP-fossil	kg $CO_{2\ eq}$	1.34E+03	1.49E+01	1.36E+01	1.61E+01	3.13E-01	-1.13E+03
ADP-fossil	MJ, net calorific value	1.54E+04	3.01E+01	2.93E+01	2.26E+02	7.66E+00	-1.15E+04
ADP-minerals&metals	kg $Sb_{\ eq}$	5.41E-02	2.04E-06	1.79E-06	5.29E-05	4.66E-07	-5.60E-04
EP-freshwater	kg $P_{\ eq}$	6.05E-01	2.50E-04	1.40E-04	1.78E-03	2.74E-05	-3.14E-01
POCP	kg $NMVOC_{\ eq}$	5.05E+00	2.51E-02	2.43E-02	1.02E-01	3.32E-03	-3.28E+00
AP	mol $H^{+}_{\ eq}$	5.78E+00	1.18E-02	1.11E-02	7.38E-02	2.19E-03	-4.00E+00
EP-terrestrial	mol $N_{\ eq}$	1.45E+01	1.97E-02	1.64E-02	2.96E-01	9.19E-03	-9.61E+00
EP-marine	kg N eq	1.37E+00	1.94E-03	1.55E-03	2.72E-02	8.41E-04	-8.87E-01
ODP	kg CFC 11 $_{eq}$	9.43E-06	1.69E-07	1.68E-07	2.14E-07	8.71E-09	-2.96E-06
WDP	m3 world $_{eq.}$ deprived	9.79E+02	3.85E-01	2.16E-01	1.27E+00	3.37E-01	-1.04E+02
Acronyms	GWP-fossil = Global Warming Potential fossil fuels; GWP-biogenic = Global Warming Potential biogenic; GWP-luluc = Global Warming Potential land use and land use change; ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption						

** 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.*

** Discouraging the use of the results of modules A1-A3 without considering the results of module C.*

** As the packaging contains more than 5% biogenic carbon, module A5 shall be disclosed to balance the emission of this carbon.*

Potential environmental impact - Additional mandatory indicator

Results per declared unit							
Indicator	**Unit**	**A1-A3**	**A5**	**C1**	**C2**	**C4**	**D**
GWP-GHG[1]	kg CO_2 eq.	1.34E+03	1.49E+01	1.36E+01	1.61E+01	3.13E-01	-1.13E+03
ETP-fw	CTUe	1.75E+04	1.08E+01	6.51E+00	4.11E+01	5.54E-01	-3.83E+03
HTP-c	CTUh	1.57E-06	9.51E-10	4.15E-10	3.88E-09	5.67E-11	-1.50E-06
HTP-nc	CTUh	1.62E-04	2.73E-08	1.36E-08	1.55E-07	1.28E-09	-3.34E-06
SQP	Dimensionless	4.80E+03	9.78E+00	9.27E+00	1.67E+02	1.51E+01	-2.51E+03
PM	Disease incidence	9.47E-05	1.10E-07	1.03E-07	1.51E-06	5.04E-08	-1.15E-04
IRP	kBq U235 $_{eq}$	7.62E+01	3.39E-02	3.27E-02	1.92E-01	4.59E-03	-8.58E+00
Acronyms	PM = Potential incidence of disease due to PM emissions; IRP = Potential Human exposure efficiency relative to U235; Potential Comparative Toxic Unit for ecosystems; HTP-c = Potential Comparative Toxic Unit for humans; HTP-nc = Potential Comparative Toxic Unit for humans; SQP = Potential Soil quality index; ETP-fw= Ecotoxicity potential for freshwater						

Resource use indicators

Results per declared unit							
Indicator	**Unit**	**A1-A3**	**A5**	**C1**	**C2**	**C4**	**D**
PENRE	MJ, LHV	1.43E+04	1.75E+01	3.10E+01	2.26E+02	7.66E+00	-1.15E+04
PERE	MJ, LHV	1.10E+03	-2.14E+01	4.05E-01	3.25E+00	7.16E-02	-2.60E+02
PENRM	MJ, LHV	1.11E+03	1.60E+02	1.46E+02	0.00E+00	0.00E+00	0.00E+00
PERM	MJ, LHV	1.60E+01	2.18E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PENRT	MJ, LHV	1.54E+04	1.77E+02	1.77E+02	2.26E+02	7.66E+00	-1.15E+04
PERT	MJ, LHV	1.11E+03	4.30E-01	4.05E-01	3.25E+00	7.16E-02	-2.60E+02
FW	m3	2.07E+01	7.25E-03	4.69E-03	3.20E-02	7.92E-03	-2.48E+00
SM	kg	2.71E+02	1.53E-02	1.44E-02	9.91E-02	1.91E-03	9.49E+02
RSF	MJ, LHV	1.03E-01	4.04E-05	2.45E-05	1.28E-03	3.98E-05	-1.41E-02
NRSF	MJ, LHV	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Acronyms	PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials; PENRM = Use of non-renewable primary energy resources used as raw materials; PENRT = Total use of non-renewable primary energy re-sources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water						

[1] This indicator accounts for all greenhouse gases except biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. As such, the indicator is identical to GWP-total except that the CF for biogenic CO_2 is set to zero.

Waste indicators

Results per declared unit							
Indicator	**Unit**	**A1-A3**	**A5**	**C1**	**C2**	**C4**	**D**
Hazardous waste disposed	kg	3.93E+02	1.57E-01	6.05E-02	5.14E-01	8.72E-03	-9.50E+01
Non-hazardous waste disposed	kg	2.95E+03	3.84E+00	8.02E-01	9.91E+00	2.02E-01	-2.18E+03
Radioactive waste disposed	kg	1.88E-02	8.22E-06	7.94E-06	4.69E-05	1.12E-06	-2.09E-03

Output flow indicators

Results per declared unit							
Indicator	**Unit**	**A1-A3**	**A5**	**C1**	**C2**	**C4**	**D**
Components for re-use	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Material for recycling	kg	2.57E+00	2.73E-02	3.09E-04	2.64E-03	8.30E-05	-5.21E-01
Materials for energy recovery	kg	2.00E-03	1.17E-06	1.10E-06	1.46E-05	1.47E-07	-4.97E-04
Exported energy, electricity	MJ	5.91E+00	2.59E-03	2.47E-03	2.00E-02	4.97E-04	-7.73E-01
Exported energy, thermal	MJ	1.81E+00	1.08E-03	9.54E-04	2.74E-02	2.64E-04	-8.97E-01

Information on biogenic carbon content

Results per declared unit		
Biogenic carbon content	**Unit**	**Quantity**
Biogenic carbon content in accompanying packaging	kg C	4.85E-01

Note: 1 kg biogenic carbon is equivalent to 44/12 kg CO_2.

Additional environmental information

Product Application:

For building materials, home appliances, decoration, agriculture, photovoltaics, automobiles, and 3C.

Environment and health during manufacturing:

The waste gas, waste water, solid waste and noise generated in the production process are handled in accordance with the requirements of relevant national and local industrial policies, and all kinds of pollutants can be stabilized and discharged according to standards after treatment;

- Waste gas emissions - various types of organized waste gas, dust, etc. were supporting the corresponding treatment facilities, waste gas after treatment to meet the standards discharged by the chimney pipeline; in addition to strengthening the production process and the environmental

management of chemical storage areas, in order to effectively reduce the emission of unorganized waste gas;

- Wastewater discharge - the company's wastewater treatment using automated control to ensure that the wastewater is stable to take over the standard; and according to the “rain and sewage diversion, sewage diversion, quality treatment, recycling and reuse,” the principle of construction and completion of the workshop, the plant rain, sewage drainage network; do a good job of the car asked, sewage network, treatment facilities and storage tanks in the area of seepage prevention, anticorrosion treatment; wastewater treatment and part of the reuse, and the rest of the treatment to meet the standards of the urban areas connected to the sewage treatment company centralized treatment. Waste water is partially reused after treatment, and the rest is connected to the urban area after meeting the standard after treatment;
- Solid waste - strictly in accordance with environmental protection requirements for treatment and disposal; domestic garbage is collected and treated by the sanitation department, hazardous waste is entrusted to qualified treatment units for unified treatment and the implementation of hazardous waste transfer approval and joint billing procedures, and zero discharge of solid waste is implemented. Other solid wastes are stored, disposed and utilized according to specifications;
- Noise - Choose low-noise equipment, take effective noise elimination, sound insulation and vibration prevention measures to ensure that the noise at the plant boundary reaches the standard.
- Energy use - fully implement the concept of circular economy and the principle of clean production, choose advanced production technology and equipment, adopt water-saving and energy-saving measures such as “multi-use of water, waste heat utilization”, strengthen the recycling of waste acid and other materials, reduce the amount of pollutants and emissions, and ensure that the clean production indexes reach the international and domestic advanced level;

Product Condition of use:

The product should not apply to sheets exposed at any time to corrosive or aggressive atmospheric conditions, including but not limited to:

- Areas subject to salt-water marine atmosphere or to repeated spraying of either salt or fresh water.
- Areas subject to fallout of or exposure to corrosive chemicals, acid rain, ash, fumes, cement dust or animal waste.
- Areas subject to water run-off from lead or copper flashing or areas in metallic contact with lead, stainless steel, monel or copper.
- Conditions or circumstances where corrosive fumes or condensates are generated or released inside the building.
- Areas subject to contact with the incorporation of concrete add mixtures which are regarded as corrosive and lead to accelerated corrosion.
- Areas subject to contact with the concrete formwork timber and supports which may contain water.
- Areas subject to immersion as a result of flood or substandard site drainage.
- External storage, leading to wet packs and wet stacks

Other: Yieh Phui (China) can produce Hot-Dip Zn-Al-Mg Coated Green Steel Sheet In Coil (RC-GM) free of ten hazardous substances stipulated by ROHS and SVHC, in accordance with 2011/65/EU and 1907/2006/EC.

Additional social and economic information

Not applicable.

Information related to Sector EPD

This is an individual EPD®.

Differences versus previous versions

This is the first version of the EPD®.

References

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PCR 2019:14 Construction products (EN 15804: A2) version 1.3.4