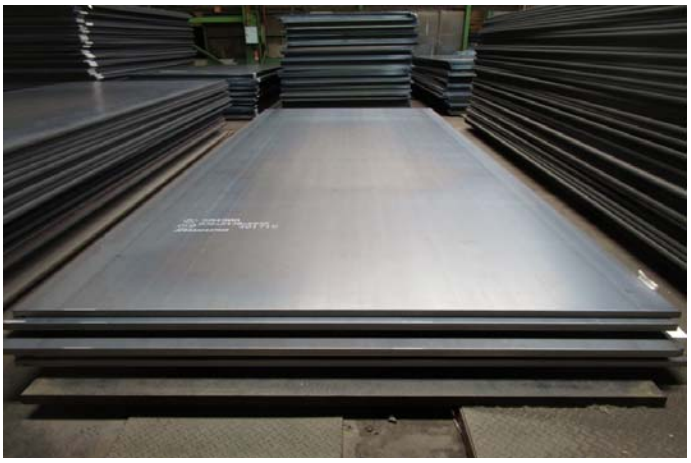
SuMPO EPD
Type III Environmental Declaration (EPD)
Registration number： JR-AJ-24030E

Japan EPD Program by SuMPO
Sustainable Management Promotion Organization
14-8, Uchikanda 1-chome, Chiyoda-ku, Tokyo Japan
https://ecoleaf-label.jp/

あつい心で未来を創ります
中部鋼鈑株式会社

Chubu Steel Plate Co.,Ltd.

Steel plate





Functional unit

1t

System boundary

☐ final products ■intermediate products

Production Stage (Raw material supply, Transport to factory, Manufacturing) and Indirect effect

Main specifications of the product

Production sites:Head office (Nagoya)

Main standards:Standards for products used in fields such as building structures,machinery, civil engineering,shipbuilding,etc.

Type:Steel Plate

Company Information

Chubu Steel Plate Co.,Ltd.
https://www.chubukohan.co.jp/

Registration#	JR-AJ-24030E
PCR number	PA-180000-AJ-06
PCR name	Steel products for construction
Publication date	4/26/2024
Verification date	4/22/2024
Verification method	Product-by-product
Verification#	JV-AJ-24030
Expiration date	4/21/2029

PCR review was conducted by:

Approval date	5/10/2023
PCR review panel chair	Yasunari Matsuno Chiba University

Third party verifier*

Shinichi Inoue

Independent verification of data & declaration in accordance with ISO14025 and ISO21930

☐internal ■external

*Auditor's name is stated if system certification has been performed.

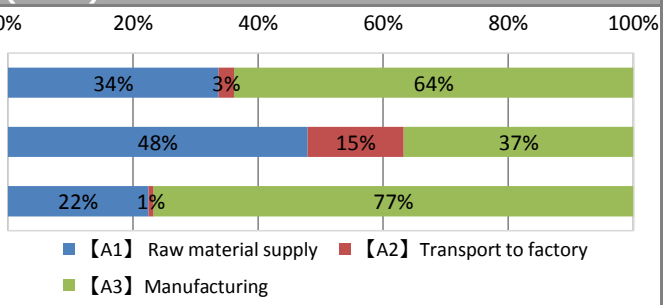
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1. Results of life cycle impact assessment (LCIA)

Global warming IPCC2013 GWP100a	760	kg-CO_2eq
Acidification	0.36	kg-SO2eq
Photochemical ozone	0.012	kg-C_2H_4eq



Parameter \ stage	Unit	Total	【A1】Raw material supply	【A2】Transport to factory	【A3】Manufacturing	【D】Indirect effect
Global warming IPCC2013 GWP100a	kg-CO_2eq	7.6E+02	2.5E+02	1.9E+01	4.8E+02	3.4E+02
Ozone layer destruction	kg-CFC-11eq	9.4E-07	9.3E-07	1.5E-10	4.1E-09	6.2E-08
Eutrophication	kg-PO_4^{3-}eq	7.6E-05	6.4E-06	1.3E-13	7.0E-05	6.3E-03
Acidification	kg-SO_2eq	3.6E-01	1.7E-01	5.5E-02	1.3E-01	5.2E-01
Photochemical ozone	kg-C_2H_4eq	1.2E-02	2.8E-03	1.0E-04	9.6E-03	7.3E-02

2. Life cycle inventory analysis (LCI)

Parameter		Unit
Non-renewable material resources	1.5E+02	kg
Non-renewable energy resources	1.1E+04	MJ
Renewable material resources	2.1E+02	kg
Renewable primary energy	2.5E+02	MJ
Consumption of freshwater	8.8E-02	m^3

3. Material composition

Material		Unit
iron[Fe]	96.8	%
carbon[C]	0.6	%
silicon[Si]	0.5	%
manganese[Mn]	2.0	%
phosphorous[P]	0.1	%
sulfur[S]	0.1	%

4. Waste to disposal

Parameter	Unit	
Hazardous waste	11	kg
Non-hazardous waste	13	kg

*Data derived from LCA and not assigned to the impact categories of LCIA

5. Additional explanation

・The indirect effect (scrap recycling potential) is calculated based on ISO 20915/JIS Q 20915 and shown in table 1 Results of life cycle impact assessment (LCIA) as 【D】 Iindirect effect.
The indirect effect is added to the total value (sum of 【A1】, 【A2】 and, 【A3】) in Tables.

・Recycling rate used in this calculation is 93.0% (calculated based on ISO 20915/JIS Q 20915 and using FY 2018 data from The Japan Iron and Steel Federatin, The Japan Steel Can recycling Association and The Japan ferrous raw materials association).

・The source of unit power consumption is the average of 10 electric power suppliers of Japan in 2014.

・Primary data collected in 2021.

Main standards:
[JIS]SS400,SS490,SM400A,SM400B,SM400C,SM490A,SM490B,SM490C,SM490YA,SM490YB,
SM520B,SM520C,SM570,SN400A,SN400B,SN400C,SN490B,SN490C,SMA400AP,
SMA400BP,SMA400CP,SMA400AW,SMA400BW,SMA400CW,SMA490AP,SMA490BP,
SMA490CP,SMA490AW,SMA490BW,SMA490CW ,etc.
[ASTM]ASTM A36,ASTM A283-C,ASTM A572-42,ASTM A572-50,ASTM A709-50,etc.
[EN]EN355B,EN355C,etc.
[Minister-approved products] CK-HYS325B,CK-HYS325C,CK-HYS355B,CK-HYS355C
[0thers]CK-BESTEN540,CK-BESTEN590,CK-BESTEN590Y,S35C,S38C,S40C,S43C,S45C,S48C,
S50C,S53C,S55C,SCM440,etc.
Including others requested by customers based on these standards.

6-1. Supplementary environmental information

The Products are manufactured in ISO14001 certified factories.

6-2. Regulated hazardous substances

Substance	CAS No.	Reference to standards or regulations
manganese [Mn]	7439-96-5	Industrial Safety and Health Act
copper [Cu]	7440-50-8	Industrial Safety and Health Act
nickel [Ni]	7440-02-0	Industrial Safety and Health Act
chromium [Cr]	7440-47-3	Industrial Safety and Health Act
molybdenum [Mo]	7439-98-7	Industrial Safety and Health Act

7. Assumptions of secondary data used

The IDEA2.1.3 data and steel scrap data from the Japan Iron and Steel Federation are used.

8. Remarks

Date of change 9/30/2026 from the EcoLeaf mark to the SuMPO EPD mark.

- For data quantification, please refer to PCR and Rules on quantification and declaration.
- Comparative assertion is permitted only when Rules on quantification and declaration are satisfied.
  (Reference URL : https://ecoleaf-label.jp/regulation/)