



EcoLeaf

Type III Environmental Declaration (EPD)

Registration number : JR-BZ-23001E

Japan EPD Program by SuMPO

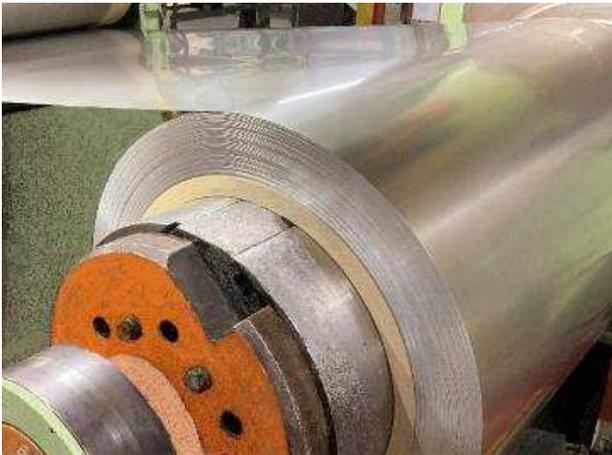
Sustainable Management Promotion Organization

14-8, Uchikanda 1-chome, Chiyoda-ku, Tokyo Japan

<https://ecoleaf-label.jp/>

NIPPON STEEL | NIPPON STEEL CORPORATION

Titanium Coils/Sheets



Zojoji Temple

Roof tiles made of TranTixxii®

Functional unit

1t

System boundary

final products intermediate products

Production Stage(Raw material supply,Transport,Manufacturing)

Main specifications of the product

Production sites : East Nippon Works ,Setouchi Works
Kyushu Works

Main standards : JIS H 4600 , ASTM B265 , ASME SB265 ,
AMS

NIPPON STEEL original See Table 8.Remarks for details.

Type : Coil, Hoop, Sheet

Main sizes(unit:mm,t:thickness)

t=0.25 ~ 8.0

Company Information

NIPPON STEEL CORPORATION

<https://www.nipponsteel.com/en/product/sheet/list/>

Registration#	JR-BZ-23001E
PCR number	PA-201590-BZ-03
PCR name	Titanium products
Publication date	10/23/2023
Verification date	10/11/2023
Verification method	Product-by-product
Verification#	JV-BZ-23001
Expiration date	10/10/2028

PCR review was conducted by:

Approval date	9/1/2023
PCR review panel chair	Ken Yamagishi Sustainable Management Promotion Organization

Third party verifier*

Hiroyuki Uchida

Independent verification of data & declaration in accordance with ISO14025

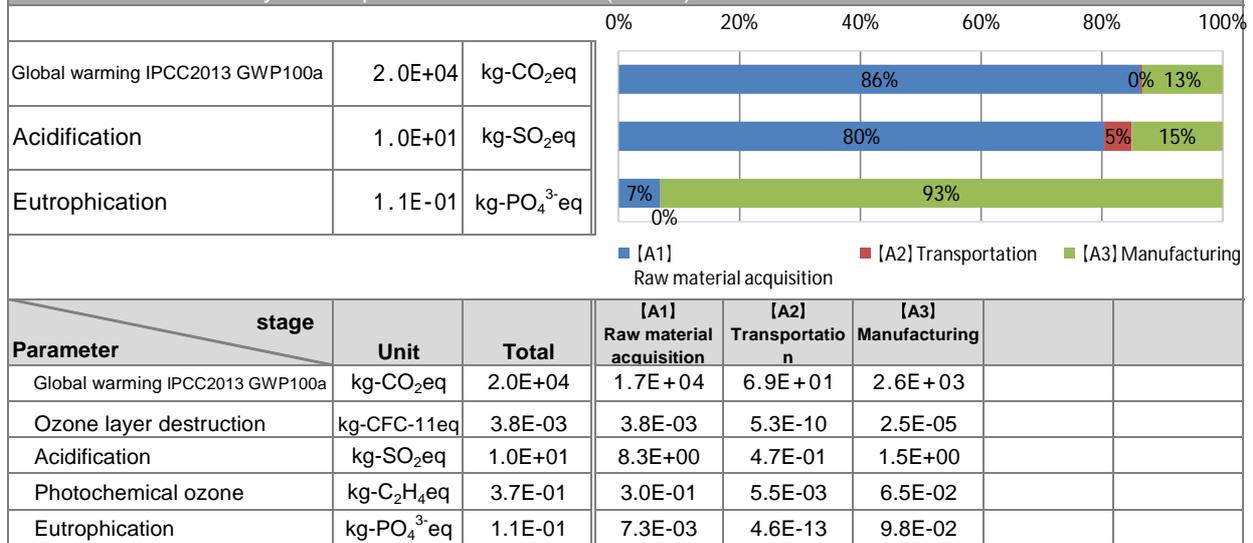
internal external

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

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1. Results of life cycle impact assessment (LCIA)



2. Life cycle inventory analysis (LCI)

Parameter	Unit
Renewable energy resources	6.8E+02 MJ
Non-renewable energy resources	9.6E+02 MJ
Renewable material resources	3.0E+04 kg
Non-renewable material resources	-6.3E+02 kg
Consumption of freshwater	2.4E-01 m ³

3. Material composition

Material	Unit
Ti	99 %
C	0.08 %
H	0.015 %
O	0.40 %
N	0.05 %
Fe	0.50 %

*The above values are for pure titanium

4. Waste to disposal

Parameter	Unit
Hazardous waste	0.0E+00 kg
Non-hazardous waste.	2.7E-01 kg

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

5. Additional explanation

- Scenarios of transport to site follow the PCR. For the transportation of coke and inter-factory transportation for intermediate products, distances were measured using mapping software. For titanium scrap transportation, 500km of the PCR scenario was selected. Transport of titanium ore and synthetic rutile are included in the inventory database on which this estimation is based, so those are not included in [A2] transport in 1. Result of life cycle impact assessment.
- Primary data collected in 2022. The source of the unit power consumption is the average of 10 electric power suppliers of Japan in 2014.
- TranTixxii[®] -Eco (the titanium scrap ratio is over 50%) is excluded.

6-1. Supplementary environmental information

Each production area has ISO 14001 certificate.

6-2. Regulated hazardous substances

Substance	CAS No.	Reference to standards or regulations
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7. Assumptions of secondary data used

The IDEA2.1.3 data is used. IDEA2.3 is used for titanium ore and synthetic rutile

8. Remarks

ONIPPON STEEL Grade

Super-TiX®800, Super-TiX®51AF, Super-TiX®52AFS, Super-TiX®10CU, Super-TiX®10CUNB, Super-TiX®10CSSN, Super-TiX®10CSSN-1
SSAT®-2041CF, SSAT®-35, Super-PureFlex®

- 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/>)

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