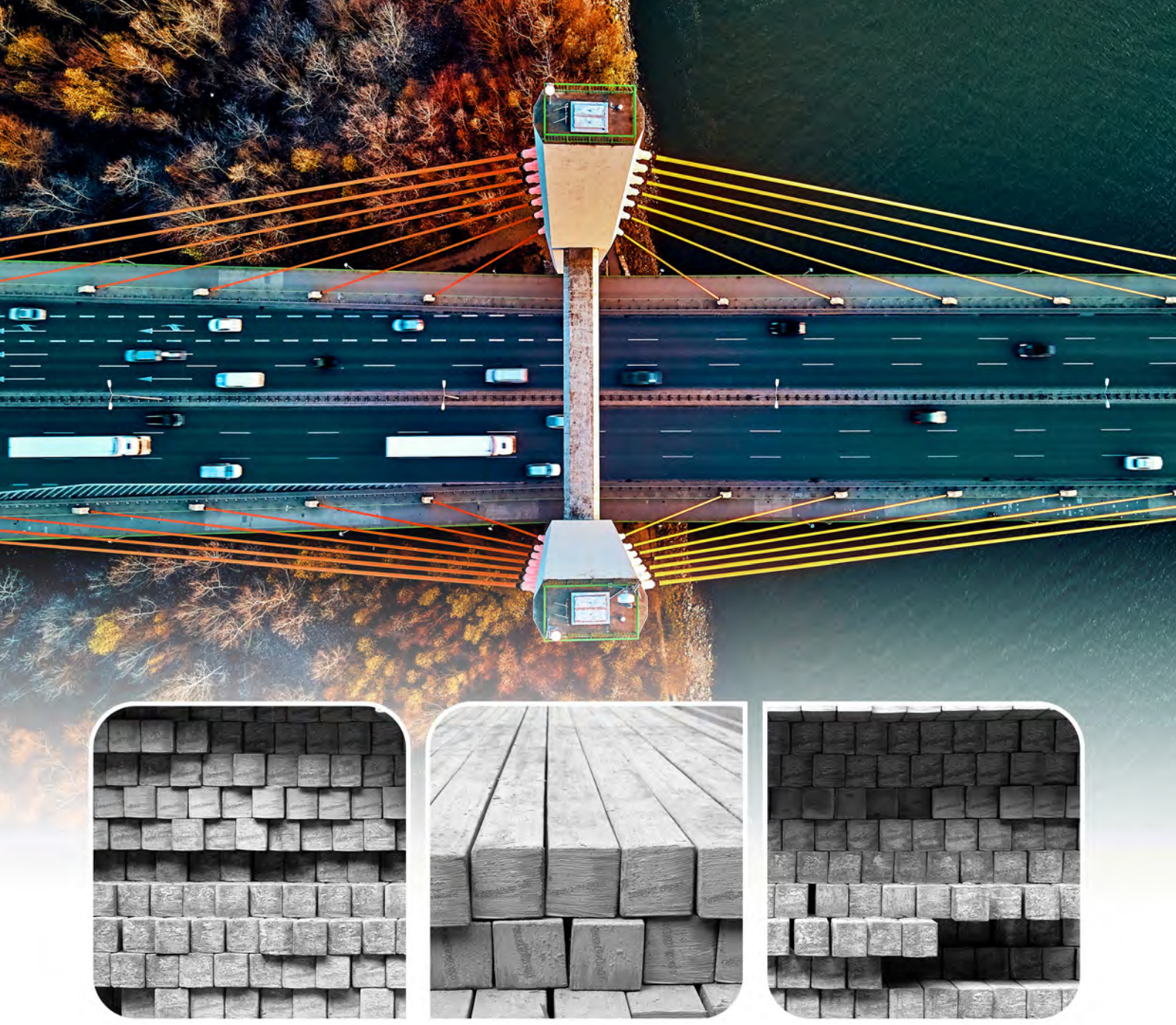


Environmental Product Declaration Type III
Steel Billets

it's what's **inside** that counts

CMC Poland Sp. z o.o. is a Polish steel mill that produces and sells products on the domestic and international markets. We conduct our production and processing activities in a way that supports and promotes environmental responsibility. We minimize our environmental impact by limiting the use of natural resources in our products. Over 120 years of experience and tradition, combined with modern technological solutions in production, environmental protection, and work safety, guarantee the quality and good brand of CMC Poland products. Our main production activity is carried out in Poland, in Zawiercie.

General information

Declaration owner	CMC Poland Sp. z o.o. ul. Piłsudskiego 82 42-400 Zawiercie
External verifier	Building Research Institute (Instytut Techniki Budowlanej) ul. Filtrowa 1 00-611 Warszawa
Declared product	Steel billets produced at CMC Poland Sp. z o.o. in Zawiercie.
Declared unit	1 tonne
Declaration number	851/2025
Date of issue	03.10.2025
Date of validity	03.10.2030
Reason for LCA	B2B
Representativeness	Polish and European product

ITB is a verified member of the European Platform for EPD program operators and an LCA conducting unit www.eco-platform.org.

Verification

Verification of the Type III Environmental Declaration is conducted in accordance with EN ISO 14025 and ISO 21930 guidelines. After verification, the document is valid for 5 years, unless input data changes significantly.

EN 15804+A2 serves as the basis for PCR
Independent verification of the declaration and data in accordance with ISO 14025:2010
☑ external ☐ internal
Independent verifier appointed by ITB: dr. Eng. Halina Prejzner
The LCA analysis was developed by CMC Poland Sp. z o.o.

The LCA study was conducted to develop a Type III environmental declaration.
The recipients of this declaration are direct and indirect customers of CMC Poland Sp. z o.o. (B2B).

Product description

Steel billets
Steel billets are semi-finished products with a square cross-section, used as input material for further processing, including: as input material for the hot rolling process.

Parameter	Value	Unit
Declared unit	1000	kg
Density	7,833	kg/m^3
Modulus of elasticity	E – 210; G – 80	GPa
Thermal conductivity	58	W/m·K
Melting temperature	1425 - 1540	°C

Delivery

The dimensions of the declared products may vary depending on the order. Technical information on specific products can be found at: https://www.cmc.com

Basic materials

The production of steel billets at CMC Poland uses 92.68% steel scrap, including Post-Consumer 81.68%; Pre-Consumer 18.32%. In addition to steel scrap, iron alloys (1.55%) and non-ferrous alloys (5.77%) are used for production, and 98.64% of the materials used for production were imported from a distance closer than 800 km (500 miles).
The steel produced does not contain substances listed in Annex XVII or XIV of Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 (REACH).

Production

Steel billets are produced by CMC Poland Sp. z o.o. at the Zawiercie Plant using an electric arc furnace (EAF) and a continuous casting line (CST), part of which is sold externally as a product, and part goes as production input to their own facilities.In the final stage, products are labeled.

Environment and health during production

At CMC Poland, environmental, health and safety, and quality management comply with the implemented and certified Integrated Management System based on international ISO standards:

- 9001 – Quality management systems,
- 14001 – Environmental management systems,
- 45001 – Occupational health and safety management systems.

Packaging

No additional packaging is used for steel billets. Wooden spacers may be used during transport.

Conditions of use

No changes in material composition should occur during use. The need for maintenance will depend on the method of product application.

Environment and health during the use phase

Under normal conditions of use, steel products do not cause negative effects on human health and the environment due to the low possibility of metal release from steel.

Reference service life

CMC Poland steel products have an unlimited shelf life, provided they are stored in appropriate conditions, guaranteeing compliance of performance properties with the declared technical specification, until they are processed.
After their use in another production process, the responsibility for the newly created product and the determination of its durability lies with the entity that carried out the processing.

Extraordinary effects

Water pollution

Under normal conditions of use, steel billets do not cause negative effects on human health and the environment due to the low possibility of metal release from steel.
No product impact is expected in case of floods.

Mechanical damage

In case of mechanical damage, no threats to the environment or human health are expected.

Reuse phase

Steel billets are not reused after the end of their service life.

Disposal

Used steel billets are a valuable secondary raw material that should be 100% collected and reprocessed into new products.

Other information

Steel billets should be fully recycled at the end of their product life cycle

System boundaries

The life cycle analysis of the tested products includes the „Product stage", modules A1-A3 (cradle-to-gate).
The calculations include the consumption of raw materials, water, gas, electricity, emissions to water, air, and information on generated waste.
Deliveries made by road and rail transport were included in the calculations.
Average transport distances were adopted for calculations, which are 1 km (transport between production departments) and for road deliveries of scrap to the Shredder installation 175 km and 171 km for scrap deliveries to the steel mill installation.
Railway distances were 328 and 274 km, respectively.
The following means of transport were adopted:

- truck, EURO 0-6 mix with a capacity of 26-28 t,
- truck, EURO 0-6 mix with a capacity of 28-34 t,
- truck, EURO 5 with a capacity of 28-34 t,
- rail transport, both electric and internal combustion, with a capacity of 1452 tonnes.

European standards for average fuel consumption were used for the calculations.
The production diagram of the declared products is presented in Fig. 1 flow diagram.
It is assumed that the sum of omitted processes does not exceed 5% of all impact categories, in accordance with EN 15804 guidelines.
Machines and equipment required for production, as well as employee transport, were excluded from the calculations.
EPD type cradle-to-gate. Modules A1-A3.

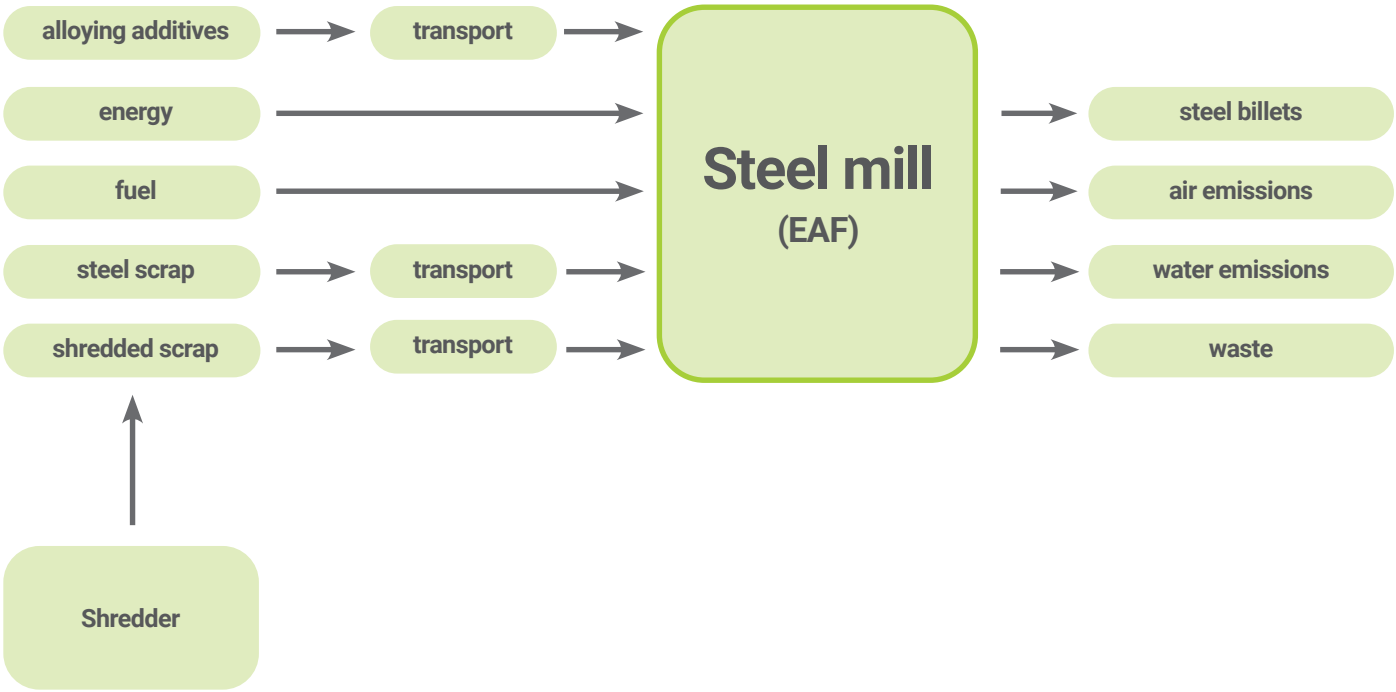
SYSTEM BOUNDARY DESCRIPTION X = INCLUDED IN LCA; ND = NOT DECLARED

	Product stage			Construc-tion phase		Stage of use							End-of-life stage				Benefits and burdens beyond system boundaries
	Raw material supply	Transport	Manufacturing	Transport	Construction - Installation process	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	Deconstruction 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
Declared modules	X	X	X	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Geography	EU	EU	PL	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Specific data used	>90%				ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Modules A1-A3 for declared products include:

- resource provision, additives and energy,
- transport of raw materials and additives to the production site,
- production processes,
- recycling of production/post-production scrap.

Fig. 1 Flow diagram



Data for calculations were collected from CMC Poland Sp. z o.o. production departments, which are stored in electronic or paper reports. The functional unit for which calculations were made is 1 tonne of product, and calculations were performed for such a unit. Based on production reports and information from departments, inputs and outputs for the steel billet production process were defined and used as input data for LCA calculations in the LCA for Experts (Sphera) program. Electricity mix for Poland modeled by Sphera. The share of electricity from RES is 30% of the total electricity demand. Energy from RES was modeled in accordance with energy origin guarantee certificates.

Data collection period

Data for LCA calculations were inventoried at the CMC Poland Sp. z o.o. production plant in Zawiercie. The data comes from the period 01.01.2024 - 31.12.2024 (1 year).

Comparability

Comparison or assessment of EPD data is only possible if all data sets for comparison have been created in accordance with PN-EN 15804+A2.

LCA: Results

This EPD was prepared using the LCA for Experts program.

Product stage			Construction phase		Stage of use							End-of-life stage				Benefits and burdens bey-ond system boundaries
Raw material supply	Transport	Manufacturing	Transport	Construction - Installation process	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	Deconstruction demolition	Transport	Waste processing	Disposal	Reuse, recovery, recycling, potential
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
X	X	X	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Parameter	Unit	A1 – A3
LCA LIFE CYCLE ESTIMATION RESULTS – ENVIRONMENT IMPACT STUDY: 1 tonne of product		
Greenhouse gas potential - total (Global Warming Potential)	kg CO_2 equivalent	2,85 E+02
Greenhouse gas potential - fossil (Global Warming Potential - fossil)	kg CO_2 equivalent	2,85 E+02
Greenhouse gas potential - biogenic (Global Warming Potential - biogenic)	kg CO_2 equivalent	1,66 E-05
Global warming potential - land use and land use change (Global Warming Potential - luluc)	kg CO_2 equivalent	5,23 E-01
Stratospheric ozone depletion potential (ODP)	kg CFC 11 equivalent	1,13 E-09
Soil and water acidification potential (AP)	mol H^+ equivalent	5,8 E-01
Eutrophication potential - freshwater (EP - freshwater)	kg P equivalent	1,99 E-04
Eutrophication potential - seawater (EP - seawater)	kg N equivalent	1,35 E-01
Eutrophication potential - terrestrial (EP - terrestrial)	Mol N equivalent	1,47 E+00
Potential for photochemical ozone synthesis (POCP)	kg NMVOC equivalent	3,6 E-01
Potential for depletion of abiotic resources - non-fossil resources (ADP - elements)	kg Sb equivalent	2,53 E-05
Abiotic depletion potential - fossil fuels (ADP - fossil)	MJ	3,09 E+03
Water deprivation potential (WDP)	m^3 equivalent	5,09 E+00
LCA LIFE CYCLE ESTIMATION RESULTS - RESOURCE CONSUMPTION: 1 tonne of product		
Consumption of renewable primary energy - excluding renewable primary energy sources used as raw materials	MJ	-
Consumption of renewable primary energy resources used as raw materials	MJ	1,72E+03
Total consumption of renewable primary energy resources (primary energy AND primary energy resources used as raw materials)	MJ	1,72E+03
Consumption of non-renewable primary energy, excluding non-renewable primary energy resources used as raw materials	MJ	-
Consumption of non-renewable primary energy resources used as raw materials	MJ	3,09E+03
Total consumption of non-renewable primary energy resources (primary energy and primary energy resources used as raw materials)	MJ	3,09E+03
Recycled materials consumption	kg	1,10
Consumption of renewable secondary fuels	MJ	-
Consumption of non-renewable secondary fuels	MJ	-
Net consumption of freshwater resources	m^3	1,83E+00
LCA LIFE CYCLE ESTIMATION RESULTS - OUTPUT MATERIAL STREAMS AND WASTE CATEGORIES: 1 tonne of product		
Hazardous waste, neutralized	kg	6,59E-06
Non-hazardous waste, neutralised	kg	1,73E+00
Radioactive waste	kg	2,36E-02
Components for reuse	kg	-
Materials to recycle	kg	1,67E+02
Materials for energy recovery	kg	-
Energy exported	MJ	-

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00-611 Warsaw, Filtrowa 1

Thermal Physics, Acoustics and Environment Department
02-656 Warsaw, Ksawerów 21

CERTIFICATE № 851/2025
of TYPE III ENVIRONMENTAL DECLARATION

Products:

Steel Billets

Manufacturer:

CMC Poland Sp. z o.o.
ul. Piłsudskiego 82, 42-400 Zawiercie, Poland

confirms the correctness of the data included in the development of
Type III Environmental Declaration and accordance with the requirements of the standard

EN 15804+A2

Sustainability of construction works.
Environmental product declarations.
Core rules for the product category of construction products.

This certificate, issued on 3rd October 2025 is valid for 5 years
or until amendment of mentioned Environmental Declaration

Head of the Thermal Physic, Acoustics and Environment Department
Agnieszka Winkler-Skalna, PhD

INSTYTUT TECHNIKI BUDOWLANEJ

Deputy Director
for Research and Innovation
Krzysztof Kuczyński, PhD

Warsaw, October 2025

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www.cmc.com
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