CSSBI
Canadian Sheet Steel Building Institute

Canadian Sheet Steel Building Institute (CSSBI) Environmental Product Declaration (EPD)

Cold Formed Steel Sections and Panels

The development of this industry average environmental product declaration (EPD) for **Cold Formed Steel Sections and Panels manufactured in Canada** was commissioned by the **Canadian Sheet Steel Building Institute (CSSBI), a division of the Canadian Institute of Steel Construction**. This Type III EPD was developed in compliance with CAN/CSA-ISO 14025 and ISO 21930:2017 and has been verified under Groupe AGÉCO.

This EPD includes life cycle assessment (LCA) results for raw material supply, transport and manufacturing and end of life (cradle-to-gate plus options).

CSSBI/CISC members authorized to use this industry average EPD are listed here: https://www.cisc-icca.ca/epds/.

For more information about CISC, please go to www.cisc-icca.ca.

Issue date: August 15, 2022

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CANADIAN INSTITUTE OF STEEL CONSTRUCTION
INSTITUT CANADIEN DE LA CONSTRUCTION EN ACIER

This environmental product declaration (EPD) is in accordance with CAN/CSA-ISO 14025, ISO 21930:2017 and the PCR noted below. EPDs within the same product category but from different programs may not be comparable.

EPD program operator	CSA Group 178 Rexdale Blvd, Toronto, ON, Canada M9W 1R3 www.csagroup.org
General program instructions	CSA-SDP-5-13 CSA Group program operator rules for Type III environmental product declarations (2013)
Manufacturer name and address	Canadian Sheet Steel Building Institute (CSSBI), a division of the Canadian Institute of Steel Construction 445 Apple Creek Blvd., Suite 102, Markham ON, Canada L3R 9X7 www.cisc-icca.ca
Declaration number	#4078-8004
Declaration product & declared unit	1 metric ton of cold formed steel sections and panels with a density of 7,800 kg/m3 or 487 lb/ft3
Reference PCR and version number	Product Category Rule Guidance for Building-Related Products and Services Part A: Life Cycle Assessment Calculation Rules and Report Requirements (version 3.2) UL Environment Product Category Rule Guidance for Building-Related Products and Services Part B: Designated Steel Construction Product EPD Requirements (version 2.0) UL Environment Valid until August 2027 UN CPC code: 412
Markets of applicability	Canada
Date of issue	August 15, 2022
Period of validity	August 15, 2022 – August 14, 2027
EPD type	Industry-average
Dataset variability	Not available
EPD scope	Cradle-to-gate plus options: production (A1-A3), C1-C4 and D
Year(s) of reported primary data	January 2021-December 2021
LCA software & version number	Gabi 10.6

LCI database(s) & version number	Gabi 10.6, Ecoinvent 3.6 Background dataset for North American hot-rolled coil, published by American Iron and Steel Institute (AISI, 2020) LCI of steel scrap from Worldsteel Association (2021)
LCIA methodology & version number	TRACI 2.1
The sub-category PCR review was conducted by:	Thomas Gloria, Industrial Ecology Consultants (chair) Brandie Sebastian, JBE Consultants James Littlefield, Independent Consultant
This declaration was independently verified in accordance with ISO 14025:2006. The UL Environment "Part A: Calculation Rules for the Life Cycle Assessment and Requirements on the Project Report," v3.2 (December 2018), in conformance with ISO 21930:2017, serves as the core PCR with additional considerations from the USGBC/UL Environment Part A Enhancement (2017)	__Internal x External
This life cycle assessment was conducted in accordance with ISO 14044 and the reference PCR by:	Stan Lipkowski ArcelorMittal Global R&D 1330 Burlington St. E Hamilton, ON, L8S 3K2
The life cycle assessment was independently verified in accordance with ISO 14044 and the reference PCR by:	Hugues Imbeault-Tétreault Groupe AGÉCO 1995, Frank-Carrel Street, suite 219 Quebec (Quebec) G1N 4H9

Limitations

The environmental impact results of steel products in this document are based on a declared unit and therefore do not provide sufficient information to establish comparisons. The results shall not be used for comparisons without knowledge of how the physical properties of the steel product impact the precise function at the construction level. The environmental impact results shall be converted to a functional unit basis before any comparison is attempted. See Section 3.10 for additional EPD comparability guidelines. Environmental declarations from different programs (ISO 14025) may not be comparable.

This is a summary of the industry average environmental product declaration (EPD) describing the environmental performance of cold formed steel sections and panels manufactured in Canada. This EPD is only applicable to structural steel sourced from Canadian and US steel mills.
CSSBI/CISC manufacturers authorized to use this EPD are listed on the CISC website: https://www.cisc-icca.ca/epds/.

EPD commissioner and owner	Period of validity	Program operator and registration number	Product Category Rule	LCA and EPD consultants
Canadian Institute of Steel Construction	August 15, 2022 – August 14, 2027	CSA Group #4078-8004	Product Category Rule Guidance for Building-Related Products and Services Part B: Designated Steel Construction Product EPD Requirements v.2	ArcelorMittal

Product description
Cold formed steel sections and panels (cladding, roofing and deck) are specified by AISI S100, CSSBI 10M, 12M and 20M

Declared units
1 metric ton of cold formed sections and panels with a density of 7,800 kg/m^3.

Material content (% of total product mass)
Steel substrate: 98%
Metallic coating (zinc or equivalent): 2%

Scope and system boundary
Cradle-to-gate plus options: production (A1 to A3), C1 to C4 and D.

What is a Life Cycle Assessment (LCA)?
LCA is a science-based and internationally recognized tool to evaluate the relative potential environmental and human health impacts of products and services throughout their life cycle, beginning with raw material extraction and including all aspects of transportation, production, use, and end-of-life treatment. The method is defined by the International Organization for Standardization (ISO) 14040 and 14044 standards.

Why an Environmental Product Declaration (EPD)?
CSSBI manufacturing members are seeking to communicate their environmental performances to clients and to position their products through a rigorous and recognized approach, an EPD. By selecting products with an EPD, building projects can earn credits towards the Leadership in Energy and Environmental Design (LEED) rating system certification, among others. In the latest versions of the program (LEED v4 and v4.1), points are awarded in the Materials and Resources category.

This EPD summary provides an overview of the full ISO 14025 compliant EPD registered with CSA Group.