Environmental Product Declaration

Steel wire rod manufactured from steel scrap

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

DEACERO®

INTELIGENCIA INDUSTRIAL

Programme:

The International EPD® System
EPD registered through the fully aligned regional programme/ hub: Latin American Hub,

www.epd-latinamerica.com

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EPD® Latin America

Programme operator:

EPD International AB

Regional Hub:

Latin American Hub of the International

EPD® System

EPD registration number:
EPD-IES-0001236:001
(S-P-01236)

Revision date:
2024-10-15
(version 001)

Validity date:
2029-10-15

Publication date:
2018-11-08

Geographical scope:
Mexico

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.

LATIN AMERICA EPD®

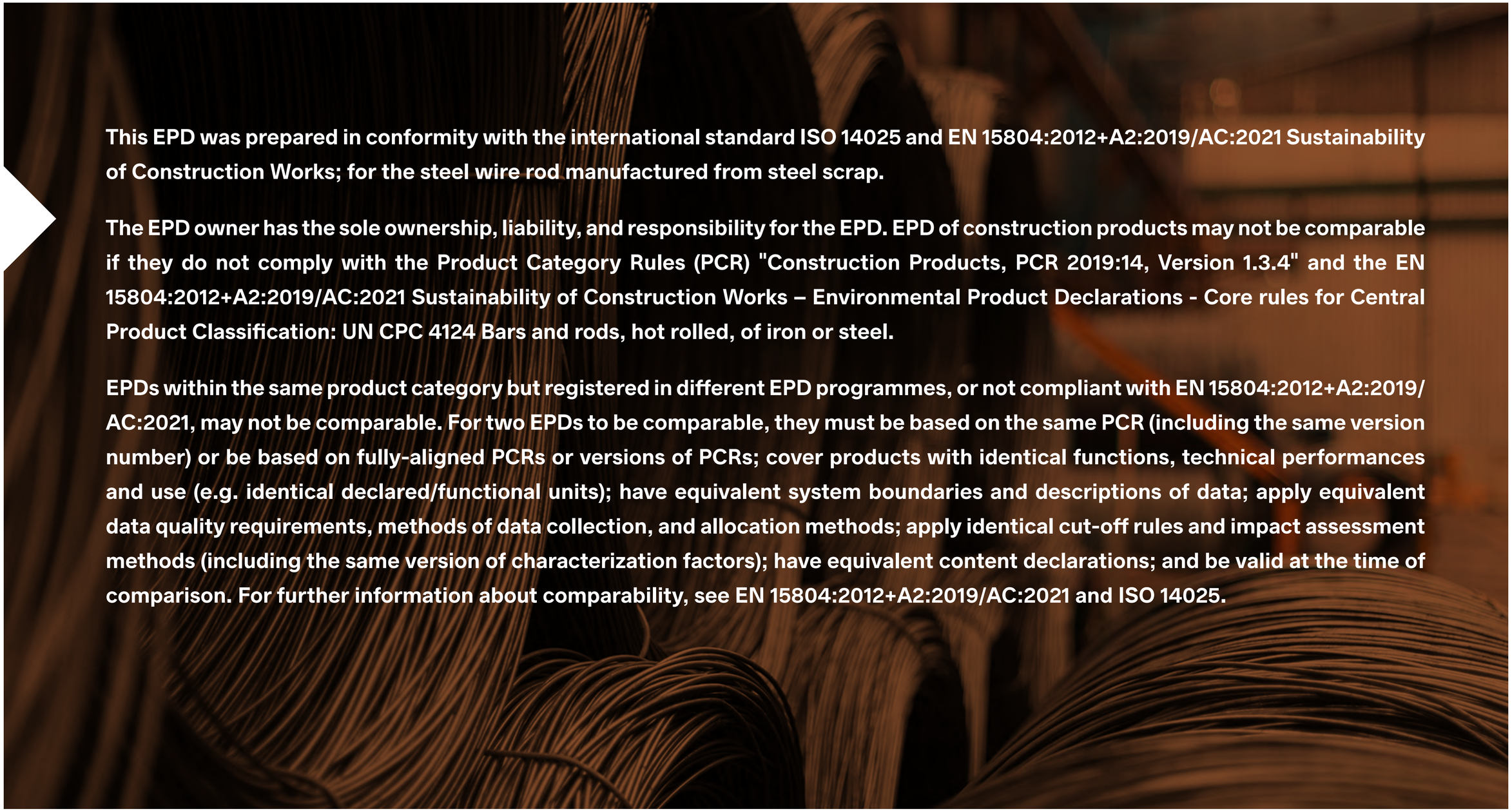
THE INTERNATIONAL EPD® SYSTEM

ECO PLATFORM EPD VERIFIED

ENVIRONMENTAL PRODUCT DECLARATION

Content

LATIN AMERICA EPD®



This EPD was prepared in conformity with the international standard ISO 14025 and EN 15804:2012+A2:2019/AC:2021 Sustainability of Construction Works; for the steel wire rod manufactured from steel scrap.

The EPD owner has the sole ownership, liability, and responsibility for the EPD. EPD of construction products may not be comparable if they do not comply with the Product Category Rules (PCR) "Construction Products, PCR 2019:14, Version 1.3.4" and the EN 15804:2012+A2:2019/AC:2021 Sustainability of Construction Works – Environmental Product Declarations - Core rules for Central Product Classification: UN CPC 4124 Bars and rods, hot rolled, of iron or steel.

EPDs within the same product category but registered in different EPD programmes, or not compliant with EN 15804:2012+A2:2019/AC:2021, 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 characterization factors); have equivalent content declarations; and be valid at the time of comparison. For further information about comparability, see EN 15804:2012+A2:2019/AC:2021 and ISO 14025.

1. DEACERO

DEACERO S.A.P.I. de C.V. is a 100% Mexican company, founded in 1952 with the vision of becoming the most attractive producer of steel and its derivatives in the steel industry. With over 70 years of experience, a global presence, and strategic locations in Latin America and North America, they have consolidated their production and commercialization of long steels, reinforcing steels, wires, wire rods, and construction systems for various industries, notably agriculture, energy, manufacturing, and construction.

They are distinguished by their strong commitment to sustainability and social responsibility, implementing advanced recycling practices. They recover and recycle 97% of the scrap metal used in their process to reduce their environmental footprint and promote a cleaner production cycle. They produce steel and wire from scrap or recycled steel in electric arc furnaces (EAF), which generate nearly four times less CO2 emissions than the basic oxygen furnace (BOF) method. This approach allows them to reduce the consumption of natural resources and minimize carbon emissions.

Their innovation and commitment to sustainability have led them to integrate practices with a lower environmental impact in all their processes, remaining in constant evolution. DEACERO has an Environmental Management System Implementation Plan with the goal of obtaining ISO 14001:2015 certification at their steel mills in Coahuila and Guanajuato, as well as at the wire plants located in the State of Mexico, Guanajuato, and Nuevo León by the end of 2024.

Since 2022, DEACERO S.A.P.I. de C.V. has been committed to the United Nations Global Compact corporate responsibility initiative and its principles in the areas of human rights, labor, environment, and anti-corruption.

2. General information

PRODUCT:	STEEL WIRE ROD
Name of the manufacturer:	DEACERO S.A.P.I. de C.V.
Description of the construction product:	Steel wire rod is manufactured from steel scrap. The product is mainly used for the construction of structural elements.
Declared unit:	1000 kg of Steel wire rod manufactured from steel scrap.
Description of the main product components and or materials:	Steel manufactured using scrap steel as source of iron.
Life cycle stages not considered:	The modules: A4, A5, B1, B2, B3, B4, B5, B6, B7.
Statement content:	This environmental product declaration is based on information modules that do not cover aspects of construction stage and use. It contains detailed information on the stage of input materials used for the generation of raw material and central process, modules A1, A2, A3, approximations of scenarios C1, C2, C3, C4 and D based on national statistics. • Definition of the product. •Content declaration. • Declared unit. • System boundary. • Environmental performance. • Evidence and verifications.
Comparability of EPD of construction products	a. EPD of construction products may not be comparable if they do not comply with EN15804:2012+A2:2019/AC:2021. b. Environmental product declarations within the same product category from different programs may not be comparable
For more information consult	www.deacero.com
Sites for which this EPD is representative	Manufacturing Plant Acería Celaya: Carretera 45 Panamericana, Tramo Celaya-Salamanca Km 64.8, El Chinaco, Villagrán, Guanajuato Acería Saltillo: Carretera. Mty - Saltillo KM. 8.5 Ramos Arizpe, Coahuila CP 25000
Intended Public:	B2B (Business to Business)

2. General information

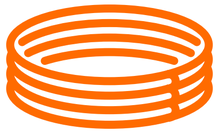
ACCOUNTABILITIES FOR PCR, LCA AND INDEPENDENT, THIRD-PARTY VERIFICATION	
Product Category Rules (PCR)	
CEN standard EN 15804 serve as the core Product Category Rules (PCR)	
Product category rules (PCR): PCR 2019:14 Construction products, version 1.3.4	
PCR review was conducted by: The Technical Committee of the International EPD System. See www.environdec.com 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:	René García, Mireya González, Center for Life Cycle Assessment and Sustainable Design – CADIS.
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: Rubén Carnerero Acosta, IK Ingeniería SL. Approved by: The International EPD System	
Procedure for follow-up of data during EPD validity involves third-party verifier	
☑ Yes ☐ No	

3. The products

Steel wire rod

The wire rod produced by DEACERO is used in the construction industry to form reinforcing steel figures. DEACERO produces the wire rod following the ASTM-A-510 manufacturing standard. Some of the characteristics of the product are:

Both families fully comply with the standards: ASTM A36 and ASTM 529-50, and have the following characteristics:



- Hot rolled steel
- Diameters 6.35 - 6.5 (1/4 inch)
- Presentations with secure straps
- High quality surface

The tensile mechanical properties are shown in Table 1.

Tensile strength	60 kg/mm^2
Yield stress	2300 kg/cm^2

Table 1. Mechanical properties of steel wire rod.

Wire rod is used in structures, manufacturing stirrups, enabling steel and reinforcing steel. Likewise, the wire rod manufactured in DEACERO has 4 ties distributed in equidistant points and has a high resistance to tension.

Figure 1. Steel wire rod manufactured by DEACERO.

4. Content declaration

Below is a summary table with the product contents and the breakdown of the identification of the contained chemical substances and their hazardousness. The raw material for the steel wire rod is the billet; therefore, the table presented below shows the substance content of this input.

Product components	Weight, kg	Post-consumer recycled material, weight-% of product	CAS Number	Biogenic material, weight-% of product	Biogenic material, kg C/product or declared unit
Scrap steel*	90	>90%	Not applicable	0	0
Pig iron	3	0%	Not applicable	0	0
Limestone	1.5	0%	471-34-1	0	0
Oxygen	4	0%	7782-44-7	0	0
Others	1	0%	Not applicable	0	0

*Steel manufactured in the Industrial Center of DEACERO uses 100% steel scrap as source of iron.
1 kg of biogenic carbon is equivalent to 44/12 kg of CO2

Table 2. Content product of the materials.

5. DISTRIBUTION PACKAGING

Packaging: The product doesn't have distribution packaging.

6. BIOGENIC CARBON CONTENT INFORMATION

Only the product reports biogenic carbon content since in the packaging the inputs that could account for impact represent less than 5% of the total weight of the packaging therefore, following those described in the RCP “Annex 2: Guidelines for the calculation of biogenic GWP” (PCR Construction Products, 2024) is not declared. Details of the biogenic carbon content are presented later in this paper.

7. LCA Rules

Environmental potential impacts were calculated in conformity to EN 15804:2012+A2:2019/AC:2021 sustainability of construction works and PCR 2019:14 Construction products Version 1.3.4, UN CPC 4124 bars and rods, hot rolled, of iron or steel. This EPD is in accordance with ISO 14025:2006.

Environmental potential impacts were calculated through Life Cycle Assessment (LCA) methodology conformity to ISO 14040:2006 and ISO 14044:2006. An external third-party verification process of the EPD was conducted according to General Programme Instructions for the International EPD® System Version 4.0[1]. Verification includes a documental review and a validation of both the underlying LCA study and documents describing additional environmental information that justify data provided in the EPD[2].

7.1 Declared unit

1000 kg of steel wire rod produced from billets that use ferrous scrap as raw material, manufactured during the year 2022 by DEACERO in the Acería Saltillo and Acería Celaya plants, used by the construction industry as reinforcement for concrete structures.

7.2 System boundary

The potential environmental impacts were calculated through Life Cycle Assessment (LCA) methodology of steel wire rod to ISO 14040:2006 and ISO 14044:2006. This study went through a critical review process in accordance with ISO / TS 14071: 2014.

According to EN 15804:2012+A2:2019/AC:2021 section 5.2 the following type of EPD is “cradle to gate with modules C1-C4 and module D (A1-A3 +C+D). This EPD is based on information upstream processes and core processes, modules A1 to A3, and approximations of scenarios C1, C2, C3, C4, and D based on construction sector statistics in Mexico (see Table 4). Does not include A4-A5 Construction stage and B Usage stage.

Life cycle stage	Information about the modules contained in the stages	EPD			
		Cradle-to-gate with modules C1-C4 and module D	Cradle-to-gate with modules C1-C4, module D and optional modules	From cradle to grave and module D	EPD construction services: Cradle to door with modules A1-A5 and optional modules
A1-A3 products stage	A1) Raw material procurement	Mandatory	Mandatory	Mandatory	Mandatory
	A2) Transport				
	A3) Manufacture				
A4-A5 Construction stage	A4) Transport	-	Optional for goods Required for services	Mandatory	Mandatory
	A5) Construction / installation				
B Usage stage	B1) Use	-	Optional	Mandatory	Mandatory
	B2) Maintenance				
	B3) Reparation				
	B4) Replacement				
	B5) Remodeling				
	B6) Operational energy use				
	B7) Operational water use				
C End of life stage	C1) Deconstruction, demolition	Mandatory	Mandatory	Mandatory	Optional
	C2) Transport				
	C3) Waste processing				
	C4) Final disposition				
D Benefits and charges beyond the system limit	D) Reuse, recycling or energy recovery potential.	Mandatory	Mandatory	Mandatory	-

Table 3. System boundaries.

1. The “EN 15804 reference package” based on the Environmental Footprint (EF) 3.1 normalization and weighting values version has been used.
2. “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.”

7. LCA Rules

Description of the modules included in this DAP.

	Product stage			Cons-truction process phase		Usage stage						End of life stage				Resource recovery stage
	Raw material supply	Transport	Manufacturing	Transport	Construction facility	Use	Maintenance	Repair	Restoration	Operational energy use	Operational use of water	Demolition/ Deconstruction	Transport	Waste processing	Disposal	Reuse – Recovery – Recycling - potential
Module	A1	A2	A3	A4	A5	B1	B2	B4	B5	B6	B7	C1	C2	C3	C4	D
Declared modules	X	X	X	ND	ND	ND	ND	ND	ND	ND	ND	X	X	X	X	X
Geography	MX	MX	MX	ND	ND	ND	ND	ND	ND	ND	ND	MX	MX	MX	MX	MX
Specific data used	>90%			-	-	-	-	-	-	-	-	-	-	-	-	-
Product variation	0%			-	-	-	-	-	-	-	-	-	-	-	-	-
Site variation	<10%1			-	-	-	-	-	-	-	-	-	-	-	-	-

X = Declared module; ND = No declared module; MX= México

Note. Infrastructure and capital goods are excluded for this evaluation, in upstream, core and downstream processes.

Direct data obtained from DEACERO records corresponds to the technology used in the steel beam production process. Data collection was carried out directly from Acería Ramos. Information managed in an internal system and specialized software of CENACE (Centro Nacional de Control de Energía) consumption logs (meters) and invoices with municipal systems and waste generation logs.

7.3. Description of information modules.

Description of information modules included in this EPD.

A1) RAW MATERIALS SUPPLY	A2) TRANSPORTATION	A3) MANUFACTURING	C) END OF LIFE	D) BENEFITS AND CHARGES BEYOND THE SYSTEM LIMIT
• Consumption and production of raw materials. • Consumption and production of electrical energy.	• Transport distance of raw materials and supplies to the manufacturing site. • Fuel consumption and emissions related to transportation requirements. • Transportation distance for waste disposal and treatment.	• Consumption and production of water. • Air emissions. • Waste generation. • Waste treatment processes, consumption of related materials and energy.	• Deconstruction • Transport final destination. • What can be recycled. • What goes to fill what is wasted and not recycled.	• The avoided loads, benefits of stopping the production of the billet.

Table 4. Description of modules included in this EPD

7. LCA Rules

7.4 Description of the manufacturing process

The manufacturing process is described in Figure 2 and Figure 3.

INPUTS USE:

Raw material.
Electric power
Diesel
Natural gas
Gas LP
Water

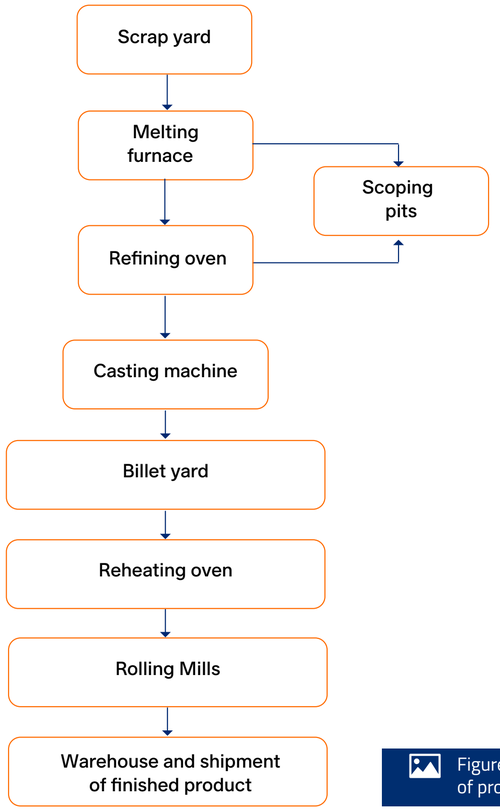


Figure 2. Celaya Steel factory. Diagram of process.

INPUTS USE:

Raw material.
Electric power
Diesel
Natural gas
Gas LP
Water

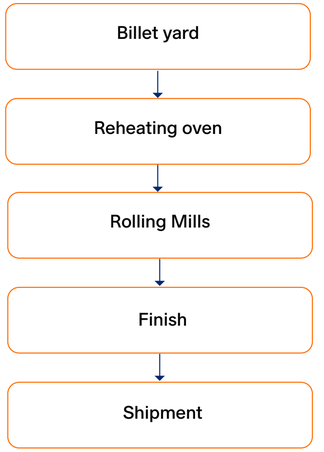


Figure 3. Saltillo Steel factory. Diagram of process.

7. LCA Rules

7.5 Assumptions

The assumptions related to the steel wire rod manufacturing process are presented below.

- The scenarios and distances associated with modules C1) Deconstruction - demolition, C2) Transport, C3) Waste processing, C4) Disposal and D) Potential for reuse, recycling or energy recovery in the future.
- According to the Latin American Steel Association (ALACERO, 2022), in Mexico, 98% of the steel generated during the demolition of construction buildings is recycled, and only 2% reaches the landfill.
- On the other hand, according to Javeriana University (Pontificia Universidad Javeriana, Faculty of Engineering, 2014) the fuel consumption involved during the demolition of buildings corresponds to 84 liters for the use of a backhoe, 111 liters for the use of a backhoe loader, 98 liters for the use of a mobile crusher. In this same process, the emissions of particulate matter associated with the demolition were obtained from Ecoinvent 3.9.1 “Steel and iron (waste treatment) {GLO}| recycling of steel and iron | Cut-off, U”.

7.6. Cut-off criteria

All flows of fuel, energy, materials and supplies necessary to produce the steel wire rod have been considered; materials that could be used in preventive or corrective maintenance of machinery and equipment were disregarded, as well as the use of uniforms and personal protective equipment or other auxiliary materials, leaving out textile impregnated with oils or plastics and the final disposal of these as hazardous waste.

7.7. Allocation

The production process of DEACERO steel wire rod begins with obtaining scrap and processing it in the scrap yard to obtain billet, which is the raw material for the products.

The product is produced in the DEACERO Saltillo and Celaya plants.

The following tables present the allocation of by-products in the ICV, for each product.

Byproduct	Quantity	Unit	Allocation
Allocation by yield	2.32E-02	Ton	2.26%
Steel wire rod	1.00E+00	Ton	97.25%
Zinc	5.11E-03	Ton	0.50%

Table 5. Allocation of by-products in the ICV of steel wire rod.

7.8. Time representativeness

Direct data obtained from DEACERO is representative for 2022.

8. Environmental performance

SimaPro 9.5 and Ecoinvent 3.9.1 were used for Life Cycle Impact Assessment.

8.1 Potential environmental impact

All information modules are reported and valued separately. However, the present EPD presents itself the total impact across all stage.

As can be seen in the next graph the greatest environmental impacts are generated by stage A1 for obtaining raw materials, followed by stage A3 manufacturing, while the lowest environmental contributions are generated by stage A2 transportation.

In fact, practically all the basic and additional categories show a similar trend in materials. In the case of A1, the greatest environmental impacts are generated by the billet. On the one hand, the billet is a raw material that is obtained and transformed within the same DEACERO plants and requires different raw materials and auxiliary energy inputs that have an impact on practically all categories.

On the other hand, electricity has impacts associated with its generation and distribution in our country, within these activities different greenhouse gases are emitted that directly impact categories such as climate change, ozone layer depletion and photochemical ozone formation.

Electricity impact

The steel wire rod manufactured by DEACERO uses electricity generated in three different power plants. The combined cycle power plants are "El Carmen" and "Tamazunchale," and the electricity high voltage mexican grid.

As part of the requirements of the PCR, the climate impact as kg CO_2 eq/kWh of the electricity used in the manufacturing process of steel wire rod, is reported in the next table. This impact was calculated using the GWP-GHG indicator.

Impact Basic Category	Unit	Quantity
Global warming potential (GWP-GHG)	kg CO_2 eq./kwh	3.86E-01

Table 6. Electricity climate impact per kwh.

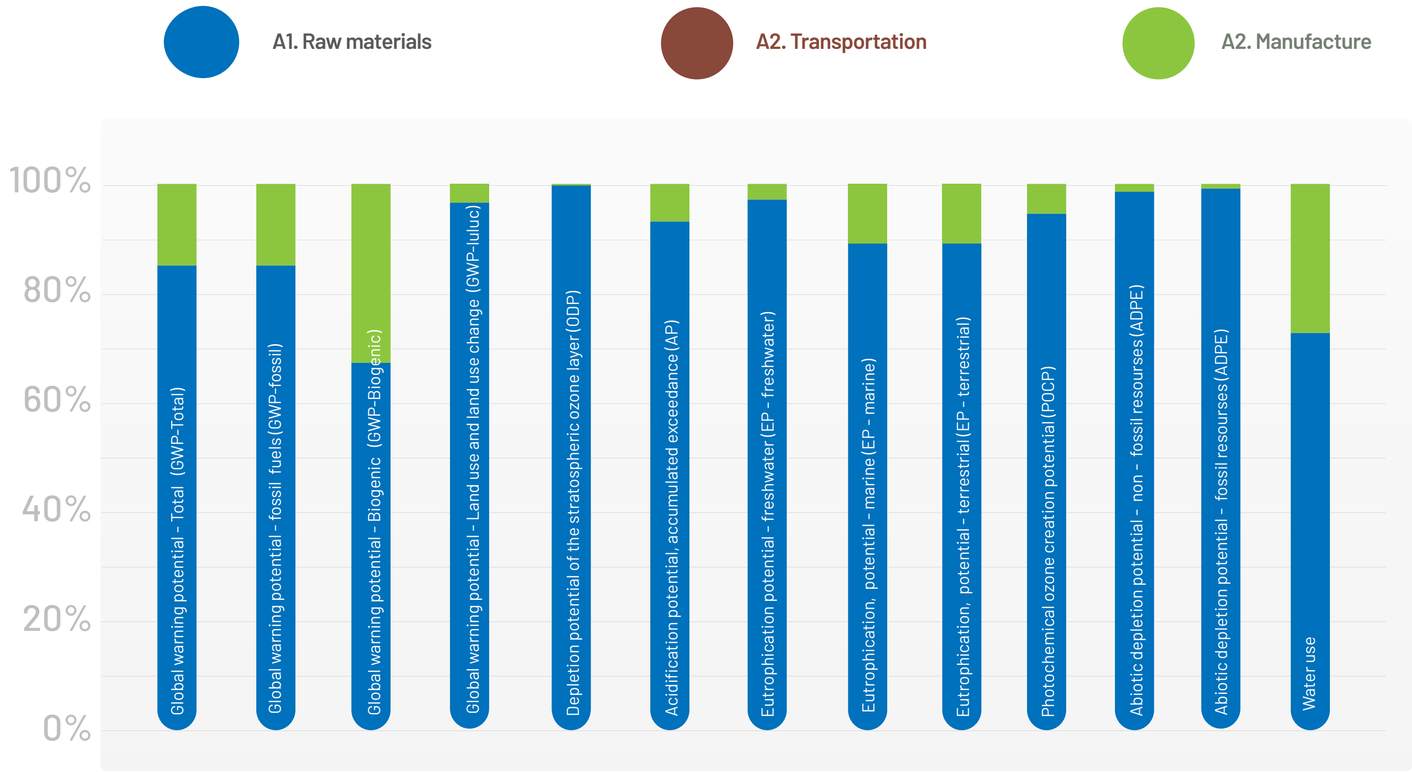
Scrap use climate impact

Another specific topic in accordance with the new requirements of the PCR is the report of the climate impact of the scrap inputs. These impacts were calculated using the GWP-GHG indicator.

Impact Basic Category	Unit	Quantity
Global warming potential (GWP-GHG)	kg CO_2 eq./ton	6.65E-02

Table 7. Scrap use, clime impact

8. Environmental performance



Graph 1. A1-A3 Basic impact categories results

8. Environmental performance

Indicators describing resource use	Unit	Total A1 – A3	C1) Deconstruction	C2) Waste transport	C3) Waste treatment	C4) Waste disposal	D) Benefits and charges beyond the system boundary
Global warming potential - fossil fuels (GWP-fossil)	kg CO_2 eq.	4.41E+02	2.68E+00	1.91E+01	0.00E+00	6.68E+00	-3.62E+01
Global warming potential - biogenic (GWP-biogenic)	kg CO_2 eq.	1.09E-01	3.76E-09	1.75E-07	9.69E-03	2.12E-07	9.53E-01
Global warming potential - land use and land use change (GWP-luluc)	kg CO_2 eq.	2.15E-01	1.10E-04	7.52E-04	0.00E+00	1.92E-03	5.46E-02
Global warming potential - total (GWP-total)	kg CO_2 eq.	4.42E+02	2.68E+00	1.91E+01	9.69E-03	6.69E+00	-3.51E+01
Depletion potential of the stratospheric ozone layer (ODP)	kg CFC-11 eq.	1.24E-05	4.23E-08	2.89E-07	0.00E+00	2.26E-08	-2.21E-06
Acidification potential, accumulated exceedance (AP)	mol H+ eq.	7.72E-01	2.57E-02	3.09E-02	0.00E+00	2.02E-02	-4.51E-02
Eutrophication potential - freshwater (EP-freshwater)	kg P eq.	5.54E-03	2.29E-06	4.58E-05	0.00E+00	8.03E-05	1.03E-02
Eutrophication potential - marine (EP-marine)	kg N eq.	2.09E-01	1.20E-02	7.18E-03	0.00E+00	5.97E-03	3.20E-03
Eutrophication potential - terrestrial (EP-terrestrial)	mol N eq.	2.29E+00	1.31E-01	7.18E-02	0.00E+00	6.76E-02	-3.12E-01
Photochemical ozone creation potential (POCP)	kg NMVOC eq.	1.23E+00	3.86E-02	4.42E-02	0.00E+00	1.86E-02	-3.32E-01
Abiotic depletion potential - non-fossil resources (ADPE)	kg Sb eq.	1.31E-04	1.13E-07	1.17E-06	0.00E+00	1.05E-05	1.58E-04
Abiotic depletion potential - fossil resources (ADPF)	MJ, net calorific value	6.76E+03	3.53E+01	2.64E+02	0.00E+00	3.24E+01	-2.32E+02
Water (user) deprivation potential (WDP)	m3 world eq. deprived	1.16E+02	4.52E-02	3.66E-01	0.00E+00	3.15E-01	-1.24E+02

Table 8. A1-A3 Basic impact categories results.

8. Environmental performance

8.2. Use of resources

Parameters describing resource use were evaluated with the Cumulated Energy Demand method version 1.09 (Frischknecht et al. 2007) except for the indicator of use of net fresh water that was evaluated with Recipe 2016 Midpoint (H) version 1.00.

According to the EN 15804:2012+A2:2019/AC:2021 standard, "Sustainability of construction works – Environmental product declarations – Core rules for the product category of construction products," and Annex 3 of Product Category Rule 1.3.4 "Guidance for the calculation of primary energy use indicators," considering scenario B outlined in the annex, the results of the environmental indicators evaluation describing resource use and others describing material and energy balance flows for modules A1-A3, C1-C4, and D are presented. A detailed description of the use of resources is provided in **Table 10.**

Indicators describing resource use	Unit	A1-A3	C1	C2	C3	C4	D
Use of renewable primary energy as energy carrier (PERE)	MJ, net calorific value	4.44E+02	6.87E-02	3.89E-01	4.68E-01	7.49E-01	5.21E+01
Use of renewable primary energy resources used as raw materials (PERM)	MJ, net calorific value	3.31E+00	0.00E+00	0.00E+00	-4.68E-01	5.63E-01	0.00E+00
Total use of renewable primary energy (PERT)	MJ, net calorific value	4.47E+02	6.87E-02	3.89E-01	0.00E+00	1.31E+00	5.21E+01
Use of non renewable primary energy as energy carrier (PENRE)	MJ, net calorific value	7.37E+03	3.75E+01	2.80E+02	1.12E+01	2.09E+01	-2.36E+02
Use of non renewable primary energy resources used as raw materials (PENRM)	MJ, net calorific value	5.50E+01	0.00E+00	0.00E+00	-1.12E+01	1.35E+01	0.00E+00
Total use of non renewable primary energy resource (PENRT)	MJ, net calorific value	7.43E+03	3.75E+01	2.80E+02	0.00E+00	3.44E+01	-2.36E+02
Use of secondary material (SM)	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of renewable secondary fuels (RSF)	MJ, net calorific value	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of non-renewable secondary fuels (NRSF)	MJ, net calorific value	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Net use of fresh water (FW)	m3	2.34E+00	4.52E-02	3.66E-01	0.00E+00	3.15E-01	-1.24E+02

Disclaimer discouraging the use of the results of modules A1-A3 without considering the results of module C.

Table 9. Use of resources parameters.

8. Environmental performance

8.3. Other indicators describing waste categories

Environmental indicators describing waste generation were obtained from LCI except for background information which has been calculated using EDIP 2003 method. Environmental parameters describing waste generation are provided in **Table 11.**

Environmental information describing waste categories and output flows	Unit	A1-A3	C1	C2	C3	C4	D
Hazardous waste disposed (HWD)	kg	7.96E+01	2.36E-04	1.78E-03	0.00E+00	9.53E-05	-1.09E-02
Non-harzardous waste disposed (NHWD)	kg	5.75E+00	2.62E-03	6.73E-02	0.00E+00	4.00E+01	2.34E+01
Radioactive waste disposed (RWD)	kg	2.07E-03	1.72E-06	9.24E-06	0.00E+00	1.55E-05	8.38E-04
Components for re-use (CRU)	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Materials for recycling (MFR)	kg	1.00E+03	0.00E+00	0.00E+00	0.00E+00	9.80E+02	1.00E+03
Materials for energy recovery (MER)	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported electrical energy (EEE)	MJ, net calorific value	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported thermal energy (EET)	MJ, net calorific value	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Table 10. Other indicators describe waste categories

*No radioactive waste is produced during DEACERO operations.

** The column “A3) Manufacturing direct and indirect, refers to direct data and background data regarding production of ancillary materials and other processes outside DEACERO’s facilities”.

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.

Note: For the interpretation of results, consider modules A1-A3 and C.

8.4. Additional environmental information

Participation, alliances and badges.

DEACERO has an Environmental Management System Implementation Plan with the objective of obtaining ISO 14001:2015 certification in its steel mills located in Coahuila and Guanajuato, as well as in the wire plants located in the State of Mexico and Guanajuato and Nuevo León by the end of 2024.

Since 2022, DEACERO S.A.P.I. de C.V. has been committed to the corporate responsibility initiative of the United Nations Global Compact and its principles in the areas of human rights, labor, environment and anti-corruption.

9. Differences between EDP versions

The previous version of this EPD named Steel Wire Rod and Steel Galvanized Wire manufactured from steel scrap was published on November 8, 2018, in accordance with PCR 2012:01 Construction products and construction services, Version 2.2 (2017-05-03).

This EPD was updated following EN 15804:2012+A2:2019/AC:2021 standard and Construction products PCR 2019:2014 V 1.3.4 (2024-04-30).

10. Verification and registration

CEN STANDARD EN 15804 SERVED AS THE CORE PCR	
Programme	EPD® International EPD® System www.environdec.com LATIN AMERICA EPD® EPD registered through the fully aligned regional programme/hub: EPD Latin America www.epdlatinamerica.com
Programme operator	**Programme operator EPD International AB** Box 210 60 SE-100 31 Stockholm, Sweden **EPD Latin America** Chile: Alonso de Ercilla 2996, Ñuñoa, Santiago Chile. Mexico: Bosques De Bohemia 2 No. 9, Bosques del Lago. Cuautitlan Izcalli, Estado de México, México.
EPD registration number:	EPD-IES-0001236:001 (S-P-01236)
Validity date:	2029-10-15
Revision date:	2024-10-15 (version 001)
Issue date:	2018-11-08
Reference year of data:	2022
Geographical scope:	Mexico
Production Plant:	Acería Saltillo and Acería Celaya
Central product classification:	UN CPC 4124 Bars and rods, hot rolled, of iron or steel
Product category rules:	PCR 2019:14 construction products, Version 1.3.4
PCR review was conducted by:	Claudia A. Peña, University of Concepción, Chile. The review panel may be contacted via the Secretariat www.environdec.com/contact.
Independent verification of the declaration data, according to ISO 14025:2006.	☐ EPD process certification (Internal) ☒ EPD verification (External)
Third-party verifier: Approved by:	Ruben Carnerero Acosta Approved EPD verifier r.carnerero@ik-ingenieria.com The International EPD® System
Procedure for follow-up of data during EPD validity involves third-party verifier:	☒ Yes ☐ No

11. Certifications

Since 2020, DEACERO has been re-cognized annually with the "Empresa Socialmente Responsable" Distinction awarded by the "Centro Mexicano de Filantropia" (CEMEFI). Since 2020.

DEACERO is evaluated annually on sustainability and social responsibility through EcoVadis, with the aim of aligning itself with ethical, sustainable and transparent practices in areas such as the environment, labor, human rights and business ethics.

DECAERO has had a Quality Management System certified under the international standard ISO 14001:2015 for its processes at Acería Celaya and Acería Ramos since 2021, and is currently in force.

Deacero has its testing laboratory located in Acería Celaya accredited in accordance with the requirements established in the standard, NMX-EC-17025-IMNC-2018 and ISO/IEC 17025: 2017.

12. Contact information

EPD OWNER	LCA AUTOR	PROGRAMME OPERATOR
DEACERO S.A.P.I. de C.V. Acería Ramos: Carretera Monclova Km. 4, Tramo Santa Cruz-Ojo Caliente #2125, Localidad El Mesón del Norte, Ramos Arizpe, del Estado de Coahuila, México. C.P. 25900 www.deacero.com Contact person: María Laura Gutiérrez Sauceda – subdirectora de Sustentabilidad sustentabilidad@deacero.com	Centro de Analisis de Ciclo de Vida – CADIS Bosques De Bohemia 2 No. 9, Bosques del Lago. Cuautitlan Izcalli, Estado de Méxi-co, México. C.P. 54766 www.centroacv.mx LCA Study: Life Cycle Assessment (LCA) methodology of steel wire rod manufactured from steel scrap. LCA Authors: García René and González Mireya. Contact person: Juan Pablo Chargoy jpchargoy@centroacv.mx	EPD International AB Box 210 60, SE-100 31, Stockholm, Sweden. www.environdec.com info@environdec.com EPD registered through the fully aligned regional pro-gramme/hub: EPD Latin America www.epd-latinamerica.com Chile: Alonso de Ercilla 2996, Ñuñoa, Santiago Chile. México: Av. Convento de Actopan 24 Int. 7A, Colonia Jardines de Santa Mónica, Tlalnepantla de Baz, Estado de México, México, C.P. 54050

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