Ternium

LATIN AMERICA EPD®

Environmental Product Declaration

In accordance with ISO 14025:2006 and EN 15804:2012

Ternium TRD 91.5 Roof Deck

Programme:	**The International EPD® System www.environdec.com**
EPD registered through the fully aligned regional programme/hub:	**EPD Latin America, www.epd-latinamerica.com**
Programme operator:	**EPD International AB**
Regional Hub:	**EPD Latin America**
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	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
Revision date:	**2019-06-27**
Geographical scope:	**Mexico**

EPD Content

1. Ternium Mexico

Ternium is a leading company in Latin America that manufactures and processes a broad range of steel products using the most advanced technology. The company provides customers that operate in such diverse and essential steel consuming industries, such as construction, automotive and energy, as well as manufacturers of heavy and agricultural machinery, household appliances and packaging, among others.

Ternium and its subsidiaries have 17 production centers in Argentina, Brazil, Colombia, Guatemala, Mexico, and the United States. It is also part of the controlling group of Usiminas, a leading steelmaker of the Brazilian market.

Ternium supplies with high quality steel all the main regional markets and it also promotes the development of its customers from the metallurgical industry. The company's distinctive position is a result of its highly integrated production procedure. Its facilities feature the whole manufacturing process of steelmaking, from the mining of iron ore to the production of high value-added products. With a yearly achievable production capacity of 12.3 million tons, Ternium's shares are listed and traded on the New York Stock Exchange.

The EPD owner has the sole ownership, liability, and responsibility for the EPD. EPDs within the same product category but from different programmes may not be comparable. EPDs of construction products may not be comparable if they do not comply with EN 15804.

2. General information

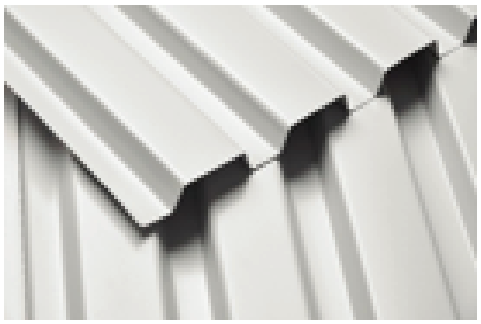
Product:	Ternium TRD 91.5 Roof Deck
Declaration owner:	Ternium Mexico S.A. de C.V. Avenida Universidad 992 Colonia Cuauhtemoc, C.P. 66 450 San Nicolas de los Garza. Nuevo León, México. Contact person: Luis Rechy lrechy@ternium.com.mx
Description of the construction product:	Product manufactured from Ternium Zintro (galvanized steel), Ternium Zintro Alum (Zn-Al galvanized steel) or Ternium Pintro steel (galvanized and painted steel). The geometry of Ternium TRD 91.5 complies with the dimensions established by the Steel Deck Institute (SDI) for the profile called "Wide Rib" or Type B, and the ANSI / SDIRD1.0 Standard (American National Standards Institute).
Declared Unit:	1 ton of Ternium TRD 91.5 Roof Deck
Construction product identification:	Central Product Classification: CPC 4123 Flat-rolled products of steel, further worked than hot-rolled or cold-rolled
Main product components:	Steel 97.2%, Zinc 2.5%, paint 0.3% and coating agents (<0.1%)
Life cycle stages not considered:	Distribution, use, end of life.
Content of the declaration:	This EPD is based on information modules that do not cover the aspects of use and end of life of the product. It contains in detail, for Module A1, A2 and A3: • Product definition and physical data. • Information about raw materials and origin. • Specifications on manufacturing the product. • Notes on product processing. • LCA based on a declared unit, cradle-to-gate. • LCA results. • Evidence and verifications.
For more information consult:	mx.ternium.com

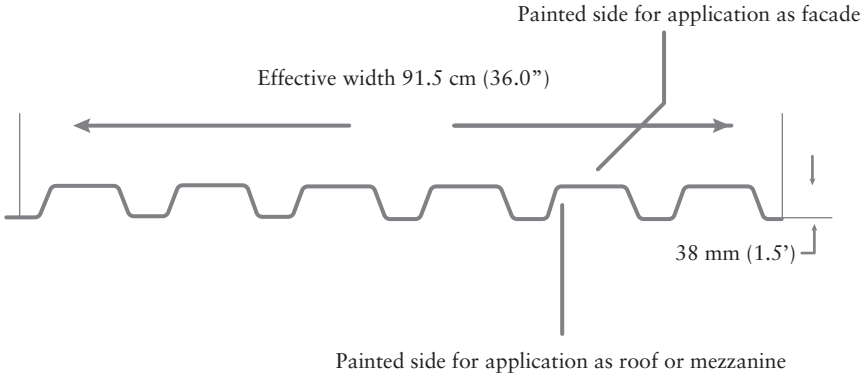
Site for which this EPD is representative:	Manufacturing Plants Industrial Center: Ave. Guerrero Nte. 151 Colonia Cuauhtémoc, San Nicolás de los Garza (66450) Nuevo León (+52) 81 8865-2828 Industrial Center: Ave. Churubusco 1000 Colonia Santa Fe Monterrey (64540) Nuevo León (+52) 81 83295000 Industrial Center: Carretera Pesquería - Los Ramones Km. 15 Ejido La Victoria Pesquería (66650) Nuevo León (+52) 81 8865-2828 Industrial Center: Ave. Juventud 340 Colonia Cuauhtémoc San Nicolás de los Garza (66450) Nuevo León (+52) 81 8865-2828 Industrial Center: Ave. Universidad 992 Nte. Colonia Cuauhtémoc, San Nicolás de los Garza (66450) Nuevo León (52) 81 8865-2828
Intended public:	B2B (Business to Business)

3. Product Description

3.1 Ternium TRD 91.5 Roof Deck

Product manufactured with stationary roller from Ternium Zintro (galvanized steel), Ternium Zintro Alum (Zn-Al galvanized steel) or Ternium Pintro steel (galvanized and painted steel). The geometry of Ternium TRD 91.5 complies with the dimensions established by the Steel Deck Institute (SDI) for the profile called "Wide Rib" or Type B, and the ANSI / SDIRD1.0 Standard (American National Standards Institute). It can be used as a composite cover or facade.





Substrate and cover properties

Table 1. Substrate and cover properties	
Product (substrate)	**Grade**
Ternium Zintro	Structural Grade 37 Fy= 255 MPa min (37 KSI)
Ternium Zintro Alum	
Ternium Pintro	

Product Properties

Table 2. Product Properties		
Caliber	**Base steel Nominal thickness mm (inch)**	**Approx. weight Kg/m2**
24*	0.5309 (0.0209)	6.68
22	0.7595 (0.0299)	8.33
20	0.9119 (0.0359)	10.02
18*	1.2141 (0.0478)	13.14

** Only manufactured under technical consultation.*

4. Content declaration

Table 3. Typical content in Ternium TRD 91.5					
Homogeneous Material or Chemical Substance	**Chemical Substances**	**Weight (%)**	**CAS Number**	**Function of Chemical Substance**	**Health class**
Steel	Not applicable	97.2%	Not applicable	Structural	Not listed
Zinc	Zinc	2.5%	7440-66-6	Coating agent	Not listed
Paint	Commercial formulation	0.3%	-	Aesthetic performance	Data lacking

5. LCA Rules

Environmental potential impacts were calculated according to EN 15804:2012 and PCR 2012:01 Construction products and construction services Version 2.3 (2018-11-15). This EPD is in accordance with ISO 14025:2006.

Environmental potential impacts were calculated through Life Cycle Assessment (LCA) methodology according 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 3.0. 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.

5.1 Declared unit

One metric ton of Ternium TRD 91.5 Roof Deck.

5.2 System boundary

The declared EPD is a "Cradle-to gate EPD" in line with ISO 14025:2006. Description of the system boundary is in Table 4.

Table 4. Ternium TRD 91.5 Roof Deck manufactured by Ternium Mexico product system

Life cycle environmental information of Ternium TRD 91.5 Roof Deck																Other environmental information
A1 - A3			A4 - A5		B1 - B7							C1 - C4				D
Product stage			Construction process stage		Use stage							End of life stage				Reuse recovery stage
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Raw materials acquisition	Transport	Manufacturing	Distribution	Construction and installation	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational wáter use	De-construction, demolition	Transport	Waste processing	Disposal	Reuse – recovery – recycling potential
X	X	X	MND	MND	MND							MND				MND
Cradle-to-gate Declared unit: one metric ton of Ternium TRD 91.5 Roof Deck																

(X = included in LCA; MND = Module Not Declared).

Table 5. Description of information modules included in this EPD.

A1) Raw materials supply	A2) Transportation	A3) Manufacturing
Pre-processing of steel scrap	Transportation of steel scrap	Fresh water consumption
Production of raw materials: ferroalloys, lime, carbon, graphite electrodes, zinc and paint	Transportation of iron pellet	Production and consumption of ancillary materials: oxygen, nitrogen, textiles for cleaning and maintenance, lubricating oils and grease
Production of packaging materials for raw materials	Transportation of other raw materials	Waste generation and waste management processes
Generation and distribution of the electricity consumed in manufacturing	Transportation of ancillary materials	Emissions to air
Generation and distribution of the natural gas consumed in manufacturing	Internal transportation requirements	Transport of waste to treatment and final disposal sites
Production of steel slab by external provider	Transport of steel slab from external provider facilities	

5.3 Description of the manufacturing process

Ternium Mexico manufactures Ternium TRD 91.5 Roof Deck as follow:

The iron pellets are prepared for steelmaking through a direct reduction process. Later, steelmaking is conducted in an Electric Arc Furnace using also steel scrap as raw material. Steel passes to the stage of secondary metallurgy and finally by a Continuous Casting Machine to hot rolling process to obtain steel coils. Ternium also acquired slab from external providers following a similar steelmaking process.

Pickling of steel coils is applied to remove impurities before cold rolling. High-precision cold rolling process is applied to obtain desired thickness of steel. Finally, the steel is galvanized through hot dip process.

Painting process is applied to galvanized steel coils. Painted coils are then cut to required dimensions through slitters.

Shape is applied to painted sheets through dice forming process.

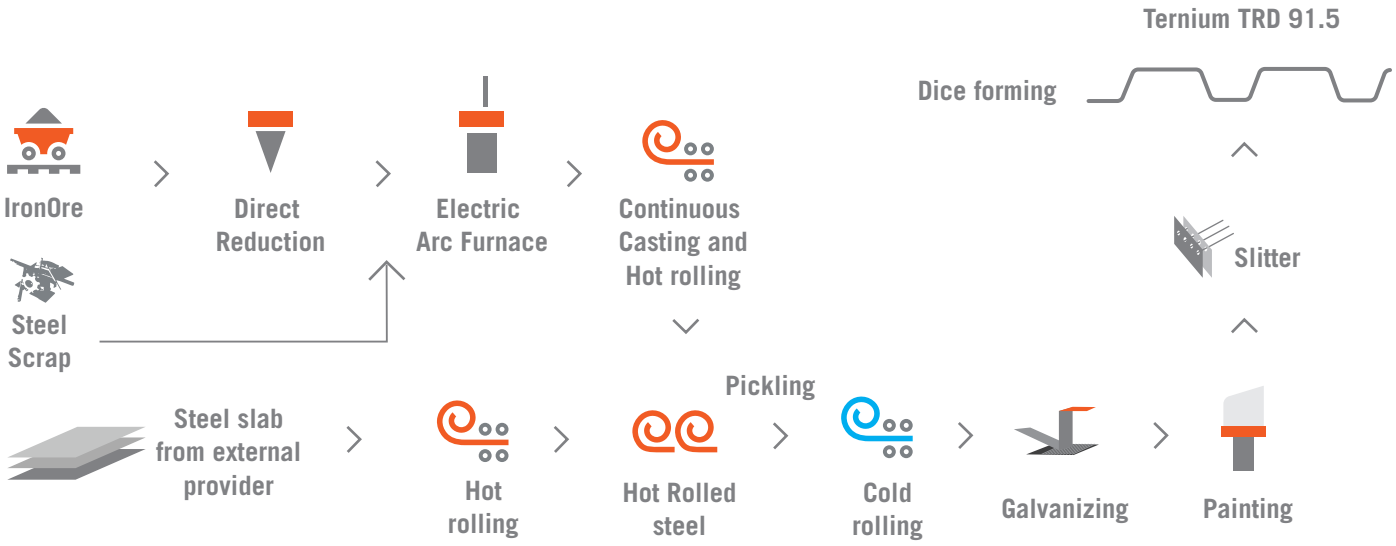


Figure. 1. Flow diagram of Ternium TRD 91.5 Roof Deck manufacturing process

5.4 Assumptions

Assumptions regarding Ternium operation:

- Metallic drums are supposed to be sent for recycling by a third party at the end of their useful life.
- Used oil from the pickling and cold rolling process in the Guerrero plant are sent to the same supplier as those generated in the steel mill.
- Process additives used in the Churubusco plant have a density of 1 kg/liter.
- An Ecoinvent model was used as a generic inorganic chemical to represent the manufacture of these elements, because 99% (by mass) are inorganic chemicals.
- Towing and maintenance textiles are supposed to absorb 55% of their weight.
- Acid cleaning residues are supposed to be impregnated textiles.

• When the company did not report the origin, the assumption was made that oil, tow, grease, textiles and mechanical components are obtained from the same municipality.

• When the generation of soil with hydrocarbons was declared, it was assumed that the soil absorbs 72% of its weight.

• When the generation of contaminated industrial waste was reported, tow and rags were added to supplement the material balance, under the assumption that 50% by weight are tow and 50% are rags from reused garments (recycling) .

• Tow and rags leave the system in the form of contaminated industrial waste or impregnated textiles and that they have the capacity to absorb 55% of their weight.

• A distance of 400 meters is assumed for sheet transports between processes within the same plant and that internal transport is done in trailers of 16 to 32 tons.

• Steel scrap generated by Ternium was considered a by-product for allocation purposes since it represents an economic input for the company.

• It is assumed that the acid supplier of the Guerrero plant is the same as that of the Churubusco plant.

• Steel shrinkage in TRD 91.5 Profile lines is internally recycled and transported to the Guerrero melt shop in a 16 to 32 ton trailer.

• The hot rolled sheet consumed by the pickling lines in Pesquería and Universidad plants comes from the Guerrero and Churubusco plants in the production ratio of each plant in 2017.

• Residual liquids generated in the Juventud plant painting lines are mainly composed of water.

• Solvents consumed in Juventud plant are the same and in the same proportion as in the University plant in the painting areas.

• Material used to clean stacks in the Juventud plant is an organic chemical.

• Natural gas consumed by Ternium Mexico comes from the Burgos gas processing complex of PEMEX and that the transport distance is as follows:

Natural gas transport	Distance (km)
Burgos - Guerrero	228
Burgos - Universidad	228
Burgos - Pesquería	212
Burgos - Churubusco	225
Burgos - Juventud	226

5.5. Cut-off criteria

A minimum of 95% of the total flows (matter and energy) in modules A1 and A3 modules were included. Company infrastructure, employee's transportation and administrative were kept out of the scope of this study.

5.6 Allocation

Allocation of inputs and outputs between product and byproducts was based on a mass relation, considering the quantity produced per year of each product and byproduct at the level of unit process.

The polluter pays principle was applied for the allocation procedure during recycling. In this way, in each case when there was an input of secondary material to the TRD 91.5 Roof Deck product system, recycling process and transportation to the site were included in life cycle inventory (for example, steel scrap). In those cases, in which output of material to recycling were presented, material transportation to recycling plant was included. This principle was applied to plastic and metal containers recycled by a third party as well as waste used as energy source by third parties.

For generic data Mexicaniuh and Ecoinvent 3.3 (Allocation - Recycled Content version) databases were used.

Table 6. Byproduct generated during TRD 91.5 Roof Deck manufacturing

	Process	Byproduct
Churubusco	Pickling (line 3)	Steel scrap
	Hot Rolling (line 3)	Steel scrap, slab cutting slag
	Cold Rolling	Steel scrap
Guerrero	Steelmaking	Slag, Mixrock, hematite
	Hot Rolling (line 1)	Steel scale
	Hot Rolling (line 2)	Steel scale
	Direct Reduction	CO2, REDI sludge, iron dust
Juventud	Galvanizing (line 1)	Zinc Dross
	Galvanizing (line 2)	Zinc Dross
	Galvanizing (line 3)	Zinc Dross
Universidad	Pickling	Steel scrap
	Galvanizing (lines 3 and 4)	Zinc Dross, Steel scrap
	Cold Rolling	Steel scrap
	Painting	Steel scrap

5.7 Time representativeness

Direct data obtained from Ternium Mexico is representative for 2017.

5.8 Data quality assessment

Data quality assessment per information module is provided in Tables 7, 8 and 9.

Table 7. Raw material supply module data quality assessment

Data	Time related coverage	Geographic coverage	Technological coverage	Data source	Measured or estimated
Raw materials and energy consumption, waste generation and emissions for iron ore extraction	1999 - 2016	Europe adapted to Mexico	Modern	Ecoinvent 3	M&E
Raw materials and energy consumption, waste generation and emissions for iron pellet manufacturing	2017	Mexico	Modern	Ternium Mexico	M
Energy consumption for scrap steel pre-processing	2018	Europe	Modern	Scrap steel processing equipment provider	E
Raw materials consumption for Ternium TRD 91.5 Roof Deck	2017	Mexico	Modern	Ternium Mexico	M
Energy consumption for Ternium TRD 91.5 Roof Deck	2017	Mexico	Modern	Ternium Mexico	M
Consumption of fuels and emissions related to electricity production in Mexico at country level	2017	Mexico	Modern Mexican energy mix	Mexicaniuh	M&E
Consumption of fuels and emissions related to electricity production by independent providers	2000 - 2016	Mexico	Modern Natural gas Combined cycle	Ecoinvent 3.3 adapted	M&E
Energy and materials consumption and emissions related to natural gas production in Mexico	2017	Mexico	Modern	Mexicaniuh	M&E
Energy and materials consumption and emissions related to the production of other raw materials for steelmaking	1990-2016	Europe	Modern	Ecoinvent 3.3	M&E
Consumption of electricity, fuels and water for production of steel slab by independent provider	2016	Mexico	Modern	Independent provider	M
Consumption of other inputs, waste treatment, process efficiency and byproducts during production of steel slab by independent provider	2017	Mexico	Modern	Ternium Mexico	E

M&E: Measured and Estimated, M: Measured, E: Estimated

Table 8. Transportation module data quality assessment

Data	Time related coverage	Geographic coverage	Technological coverage	Data source	Measured or estimated
Transport distance of scrap and other raw materials	2017	Mexico	N/A	Ternium Mexico	M
Transport distance of ancillary supplies	2017	Mexico	N/A	Ternium Mexico	M
Consumption of materials and energy and emissions related to the transport requirements of raw materials and auxiliary inputs.	1992-2014	Worldwide average based on Europe	Worldwide average based on Europe	Ecoinvent 3.3	M&E

M&E: Measured and Estimated, M: Measured, E: Estimated

Table 9. Manufacture module data quality assessment

Data	Time related coverage	Geographic coverage	Technological coverage	Data source	Measured or estimated
Production yield and generation of by-products.	2017	Mexico	Modern	Ternium Mexico	M
Consumption of auxiliary materials during manufacturing.	2017	Mexico	Modern	Ternium Mexico	M
Consumption of energy and materials for the manufacture of ancillary materials.	1990 - 2017	Worldwide average based on Europe	Worldwide average based on Europe	Ecoinvent 3.3	M&E
Waste generation during manufacture	2017	Mexico	Modern	Ternium Mexico	M
Consumptions of materials and related energy during waste treatment.	1990 - 2017	Worldwide average based on Europe	Worldwide average based on Europe	Ecoinvent 3.3	M&E
Emissions to air during the manufacturing process	2017	Mexico	Modern	Ternium Mexico EPA AP42	M
Waste transport distance	2017	Mexico	Modern	Ternium Mexico and Google Maps	M
Consumption of materials and energy and emissions related to waste transport requirements	1992-2014	Worldwide average based on Europe	Worldwide average based on Europe	Ecoinvent 3.3	M&E

M&E: Measured and Estimated, M: Measured, E: Estimated

6. Environmental performance

SimaPro 8.4.0 was used for Life Cycle Impact Assessment.

6.1 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 obtained from life cycle inventory (direct consumption) and with Recipe 2016 Midpoint (H) version 1.00 (indirect consumption) (Huijbregts et al. 2017). The detailed description of the use of resources is provided in Table 10.

Table 10. Resource Indicators per metric ton of TRD 91.5 Roof Deck

Impact Category	Unit	A1) Raw materials supply	A2) Transportation	A3) Manufacturing (direct)	A3) Manufacturing (indirect)	Total A1-A3
Use of renewable primary energy excluding renewable primary energy resources used as raw materials	MJ %	1 368 88.7%	26 1.7%	0 0.0%	148 9.6%	1 542 100.0%
Use of renewable primary energy as raw materials	MJ %	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%
Total use of renewable primary energy resources	MJ %	1 368 88.7%	26 1.7%	0 0.0%	148 9.6%	1 542 100.0%
Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials	MJ %	20 797 85.4%	1 652 6.8%	0 0.0%	1 907 7.8%	24 356 100.0%
Use of non-renewable primary energy used as raw materials	MJ %	4 285 68.9%	0 0.0%	1 932 31.1%	0 0.0%	6 217 100.0%
Total use of non-renewable primary energy resources	MJ %	25 082 82.0%	1 652 5.4%	1 932 6.3%	1 907 6.2%	30 573 100.0%
Use of secondary material	kg %	66 34.3%	0 0.0%	127 65.7%	0 0.0%	193 100.0%
Use of renewable secondary fuels	MJ %	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%
Use of non-renewable secondary fuels	MJ %	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%
Use of net fresh water	m3 %	7.1 58.2%	0.4 2.9%	1.5 12.0%	3.3 26.9%	12.2 100.0%

***The column "A3) Manufacturing (direct) refers to direct data from Ternium operations. The column "A3) Manufacturing (indirect) refers to background data regarding production of ancillary materials and other processes outside Ternium's facilities".*

6.2 Potential environmental impact

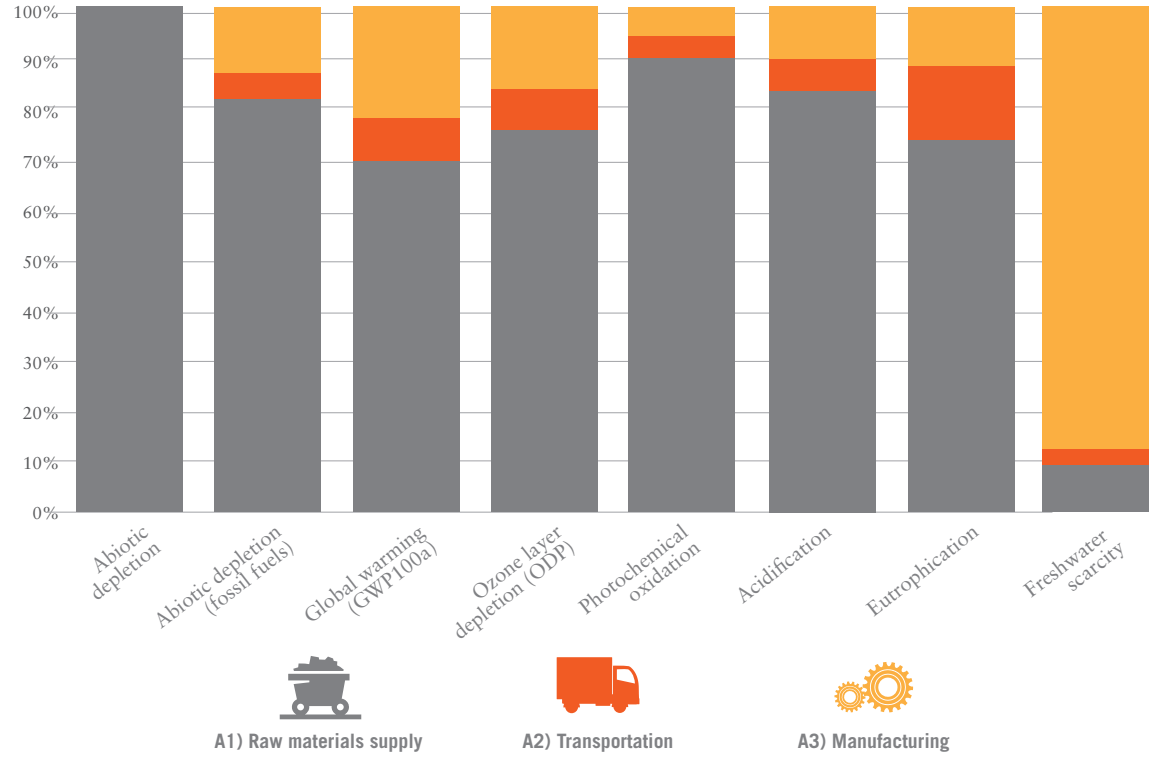
All information modules are reported separately. However, the total impact across all stages are also presented. Parameters describing environmental potential impacts were calculated using CML-IA method version 3.04 (Guinee et al. 2001; Huijbregts et al. 2003; Wegener et al. 2008) as implemented in SimaPro 8.4.0 Water scarcity potential was calculated using AWARE method (Boulay et al. 2018).

Table 11. Potential environmental impact indicators per metric ton of TRD 91.5 Roof Deck

Impact Category	Unit	A1) Raw materials supply	A2) Transportation	A3) Manufacture	Total A1 - A3	A4 - A5, B1-B7, C1-C4, D
Abiotic depletion	kg Sb eq %	2.14E-01 99.8%	1.96E-04 0.1%	3.00E-04 0.1%	2.14E-01 100.0%	
Abiotic depletion (fossil fuels)	MJ %	24 474 82.1%	1 624 5.4%	3 700 12.4%	29 798 100.0%	
Global warming (GWP100a)	kg CO2 eq %	1 099 67.8%	103 6.4%	419 25.8%	1 622 100.0%	
Ozone layer depletion (ODP)	kg CFC-11 eq %	1.81E-04 74.5%	1.83E-05 7.5%	4.36E-05 18.0%	2.43E-04 100.0%	Modules not declared
Photochemical oxidation	kg C2H4 eq %	0.60 90.0%	0.02 3.3%	0.04 6.7%	0.66 100.0%	
Acidification	kg SO2 eq %	8.5 85.1%	0.5 5.1%	1.0 9.8%	10.0 100.0%	
Eutrophication	kgPO4^{3-}eq %	1.2 77.8%	0.1 7.4%	0.2 14.8%	1.6 100.0%	
Water scarcity potential	m3eq %	60 11.3%	7 1.3%	460 87.3%	526 100.0%	

** Note: AWARE method sets the maximal characterization factor (i.e. 100) for the geographical location of Ternium Works involved in Ternium TRD 91.5 Steel Deck manufacturing. However, AWARE factor is linked to Ecosystem Water Requirement (EWR) which is calculated at global scale and does not account for specific local aspects due to limited data access. EWR is the most uncertain variable of the method (Boulay et al. 2018).*

Figure. 2 Potential environmental impact contribution per metric ton TRD 91.5 Roof Deck



6.3 Waste production

Environmental indicators describing waste generation were obtained from LCI except for background - information, which has been calculated using EDIP 2003 method (Hauschild and Potting, 2005). Table 12 shows waste and other outputs generated during each information module.

Table 12. Waste and other outputs per metric ton of Ternium TRD 91.5 Roof Deck

Parameter	Unit	Total A1-A3	1) Raw materials supply	A2) Transportation	A3) Manufacturing (direct)**	A3) Manufacturing (Indirect)**
Hazardous waste	kg	11.0	5.8	9.93E-04	5.1	9.38E-04
	%	100.0%	53.3%	0.0%	46.7%	0.0%
Non hazardous waste	kg	153	45	101	1.73E-01	6
	%	100.0%	29.7%	66.2%	0.1%	4.0%
Radioactive waste*	kg	0.04	2.03E-02	1.02E-02	0	6.16E-03
	%	100.0%	55.3%	27.9%	0.0%	16.8%
Components for reuse	kg	0.00	0	0	0	0
	%	0%	0%	0%	0%	0%
Materials for recycling	kg	134	65	0	69	0
	%	100.0%	48.6%	0.0%	51.4%	0.0%
Materials for energy recovery	kg	2.53	0.04	0.00	2.49	0.00
	%	100.0%	1.6%	0.0%	98.4%	0.0%
Exported energy	kg	0	0	0	0	0
	%	0%	0%	0%	0%	0%

**No radioactive waste is produced during Ternium Mexico operation.*
***The column "A3) Manufacturing (direct) refers to direct data from Ternium operations. The column "A3) Manufacturing (indirect) refers to background data regarding production of ancillary materials and other processes outside Ternium's facilities".*

6.4 Additional environmental information

All the Industrial centers of Ternium Mexico related to the manufacturing process of TRD 91.5 are certified with ISO 14001:2015 and most of them also have the Clean Industry Governmental Award. Also, an environmental policy is kept in practice in all industrial centers of the company in Mexico. All the industrial centers of Ternium Mexico related to the manufacturing process send a portion of hazardous waste to energy recovery.

Facility	Fraction of waste to energy recovery
Churubusco	4%
Guerrero	40%
Juventud	69 %
Pesquería	4%
Universidad	20%

Ternium's Certifications

Environment

Ternium plants in Mexico participate in the National Voluntary Environmental Audit Program of the PROFEPA (Federal Attorney for Environmental Protection), thereby ensuring that during the manufacturing processes, compliance with the provisions of current environmental regulations is met. Likewise, the Environmental Management System of the Ternium Plants that participate in the manufacture are certified under standard ISO 14001:2015.

Towards sustainability and environmental protection Ternium manufactures 100% recyclable products, with the highest quality and minimizing environmental impact. Recycling is an important part of the company's production process, as well as ensuring a long-term healthy link with the communities neighboring the production centers.

Ternium is deeply committed to sustainable development, so its actions are guided by an Environmental and Energy Policy that involves employees, shareholders, suppliers, customers and communities. The company has a Management System that foresees procedures, reviews and specifies records for the proper operation, maintenance and control of facilities, as well as for the handling of substances.

Quality

In order to ensure the quality of the steel products that are produced in Ternium plants, the different manufacturing processes are certified with the ISO 9001:2015 or ISO/TS 16949:2009 quality standards, in its latest version. Additionally, the chemical and physical test labs are certified with ISO 17025:2017 standard, as well in its latest version.

Safety

To ensure the physical integrity and occupational health of all the personnel, Ternium Plants that participate in the manufacture have a Health & Safety Management System certifi¬ed under the OHSAS 18001 standard.

Active Participation

Ternium reports, since 2005, CO2 emissions to the World Steel Association. This garnered the recognition of the "Climate Action Member" program. Additionally, Ternium subscribed to the report on sustainability indicators and reports on energy consumption and personnel training. Also, the company is part of different groups that are concerned about environmental issues, mainly the World Business Council for Sustainable Development (National Chapters), the Latin American Steel Association (Alacero), World Steel Association and various work committees in several industrial associations. In Mexico, it participates through the commissions related to environmental issues and energy saving of the National Chamber of Iron and Steel (CANACERO), the Mining Chamber of Mexico (CAMIMEX) and the Environmental Protection Institute of Nuevo León (IPA-NL).

In 2018 Ternium won the Sustainability Champions Award. This recognition was granted for its work in favor of sustainability.

7. Verification and registration

Programme:	International EPD® System www.environdec.com EPD registered through the fully aligned regional programme/hub: EPD Latin America www.epd-americalatina.com
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: Av. Convento de Actopan 24 Int. 7A, Colonia Jardines de Santa Mónica, Tlalnepantla de Baz, Estado de México, México, C.P. 54050
EPD registration number:	S-P-01427
Date of publication (issue):	2019-07-01
Date of validity:	2024-06-26
Date of revision:	2019-06-27
Reference year of data:	2017
Geographical scope:	Mexico
Product group classification:	CPC 4123 Flat-rolled products of steel, further worked than hot-rolled or cold-rolled
PCR:	2012:01 Construction products and construction services Version 2.3
PCR review was conducted by:	The Technical Committee of the International EPD® System. Chair: Massimo Marino. Contact via info@environdec.com
Independent verification of the declaration data, according to ISO 14025:2006.	EPD process certification (Internal) ☐ EPD verification (External) ☑
Third-party verifier: Approved by:	Rubén Carnerero Acosta r.carnerero@ik-ingenieria.com The International EPD® System
Procedure for follow-up of data during EPD validity involves third-party verifier:	Yes ☐ No ☑

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