



ENVIRONMENTAL PRODUCT DECLARATION



WELDED CARBON STEEL PIPES WITH PLAIN, GROOVED OR THREADED ENDS

EPD OF MULTIPLE PRODUCTS BASED ON AVERAGE RESULTS

EPD owner

Program:

Operator:

Acciaitubi S.p.A.

Registered Office:Via Balicco 61 – 23900 Lecco (LC) Operational Headquarter: Via Valtrighe, 2 – 24030 Terno d'Isola (BG)

The International EPD[®] System, www.environdec.com

EPD International AB

ISO 14025:2006; EN 15804:2012+A2:2019/AC:2021

EPD-IES-0021453

2025-03-28

Validity (until):

Publication date:

Based on standars:

Declaration number:

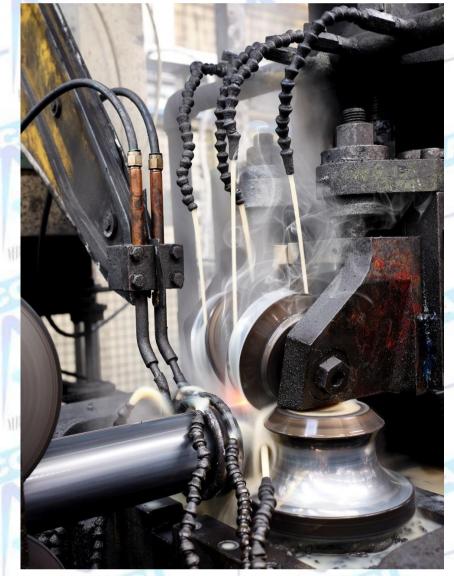
2030-03-27



An EPD must provide up-to-date information, and can be revised as conditions change. The declared validity is therefore subject to continued registration and publication on www.environdec.com

- DOCUMENT PARTLY TRANSLATED FROM ITALIAN - SIMPLIFIED VERSION FOR COMMUNICATION PURPOSES -

GENERAL INFORMATION



Program:The International
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Responsibilities for PCR, LCA, and Independent Third-party Verification

Product Category Rules (PCR)

The reference standard for the PCR considered is CEN EN 15804: Construction products, 2019:14, version 1.3.4.

The PCR review was conducted by the technical committee of the International EPD® System. PCR Review Chair: Claudia A. Peña, University of Concepción, Chile. The review panel can be contacted via www.environdec.com/contact.

Life Cycle Assessment (LCA)

Responsible: AQM S.r.I. – Via T. Edison 18, 25050 Provaglio d'Iseo (BS), <u>https://aqm.it</u> in collaboration with Epicentro Italia Srl – Via Aldo Moro, 48 – 25124 Brescia, <u>https://www.epicentroitalia.com/</u>

Third-party Verification

Independent verification of the declaration and data according to ISO 14025:2010. Third-party verifier: Bureau Veritas Italia SpA, Viale Monza 347 – 20126 Milan. Accreditation Body and Number: Nr. 0009VV – Accredia, according to UNI CEI EN ISO/IEC 17029:2020.

EPDs within the same product category but registered under different programs or not compliant with EN 15804 cannot be compared. For two EPDs to be comparable, they must: be based on the same PCR (including the same version) or fully aligned PCR versions; cover products with identical functions, technical performance, and use (identical declared/functional units); have equivalent system boundaries and data descriptions; apply equivalent data quality requirements, data collection methods, and allocation procedures; apply identical cut-off rules and impact assessment methods (including the same characterization factors version); have equivalent and valid content declarations at the time of comparison.

The EPD owner holds exclusive ownership, responsibility, and liability for the EPD.





ENGLISH SUMMARY

GENERAL INFORMATION ABOUT THE EPD

The International EPD® System – EPD International AB

www.environdec.com – info@environdec.com

Product Category Rules (PCR)

The standard CEN EN 15804 is the reference for the PCR considered: *Construction products, 2019:14, ver.1.3.4.* Independent verification of the declaration and data, in accordance with ISO 14025:2010. **Third-party verifier**: Bureau Veritas Italia SpA, Viale Monza, 347 – 20126 Milan.

Accreditation number and body: Nr. 0009VV – Accredia, according to UNI CEI EN ISO/IEC 17029:2020.

GENERAL INFORMATION ABOUT THE COMPANY

Acciaitubi S.p.A. – Via Balicco 61 23900 Lecco (LC)

Plant: Via Valtrighe, 2 – 24030 Terno d'Isola (BG)

https://www.acciaitubi.it/

Internal project contact: Nicolas Delcarro, nicolasdelcarro@acciaitubi.it

Acciaitubi S.p.A. is one of the leading Italian manufacturers of welded tubes, with thousands of customers in Italy and abroad, an authorized production capacity of 100,000 tons/year, and a production and storage area of approximately 60,000 m².

Founded in 1961, the history of Acciaitubi is that of the Berera family, which has been operating in the steel sector for over a century.

The production line includes tube forming and welding lines, processing hot-rolled and high-strength materials. Alongside these, there are hot-dip galvanizing lines and finishing operations such as threading, grooving, custom cutting, and painting (both water-based and epoxy).

The current product range focuses mainly on steel tubes for gas and water in plumbing and heating systems, fire sprinkler systems, conduit tubes for cable passage and explosion-proof electrical systems (AD-PE), tubes for carpentry and scaffolding.

RODUCT INFORMATION	
Product Name	Welded carbon steel tube with plain, grooved, and threaded ends
Product Identification	Steel tube produced from hot-rolled coils, with various possible finishes: plain, threaded, and grooved
UNC CPC Code	412 "Product of iron and steel"
Geographical Scope	Europe
Declared Unit	1 ton of welded carbon steel tube
Time Representativeness	The data used refer to the 2023 production year.
LCA Database and Software Used	Ecoinvent v.3.10, SimaPro v.9.6.0.1
System Boundaries	This study was developed considering "cradle-to-gate" system boundaries with module C1 – C4 and module D, as defined in EN
	15804:2012+A2:2019, paragraph 7.2.2, point a).
	The modules included in the study are A1-A3 and C1-C4 and D.
	Modules A4-A5 and B1 to B7 are excluded.





System boundaries include:

- A1: production of raw materials (steel semi-finished products, purchased components, raw materials packaging, energy used in phase A3);
- A2: transport of raw materials (semi-finished products, purchased components) to the company's production site;
- A3: manufacturing of products at the company's production site, including water consumption, packaging, waste management (including packaging waste), and emissions from production processes.
- C1: dismantling or demolition process;
- C2: transport of waste to treatment/disposal sites;
- C3: waste treatment for recovery-recycling preparation;
- C4: final disposal.
- D: potential benefits and impacts from recovery-reuse-recycling of materials and energy throughout the life cycle. Modeling of recoveryreuse-recycling benefits is carried out according to EN 15804:2012 + A2:2019 § 6.4.3.3.

The processes included in module A3 are:

- Receiving coils
- Coil slitting into strips
- Forming:
 - Forming of the strip into circular profile
 - Welding
 - Final calibration/sizing
 - Cutting to length
- Finishing (threading and grooving)
- Packaging, storage, and loading for shipment

System boundaries do not include:

- Modules A4-A5 related to product distribution and installation
- Modules B1-B7 related to the use phase
- Packaging of raw materials, as it is not considered significant. (Note: coils are packaged with steel straps, whose weight is negligible compared to the coils themselves.)
- Personnel-related impacts (e.g., commuting), in accordance with PCR 2019:14 (§4.3.2);

Italian residual mix at medium voltage. With GWP – GHG equal to 0,641 KgCO_{2eq}/kWh

 Input and output flows related to the manufacture and end-of-life of capital goods and infrastructure, in accordance with PCR 2019:14 (§4.3.2).

Primary data regarding the production of steel tubes refer to Italian operations; therefore, database processes specifically referring to Italy were selected (e.g., for electricity production). Where not available, European averages were used.

For raw material data (steel coils), the country of the specific production facility was considered when known, and an average European or global process was used depending on the location.

Technological Coverage	Data related to technologies at the Acciaitubi S.p.A. plant refer to specific technologies. For secondary data, the technological representativeness
	from the Ecoinvent 3.10 database was used for each process.
Cut-off Rules	The cut-off rules of EN 15804:2012 + A2:2019 § 6.3.6 and PCR 2019:14 § 4.4 apply.

Energy and resource consumption are allocated by mass. All waste generated during the steel processing is accounted for.

Allocation Procedures

Geographical Coverage

Electricity



