

Environmental Product Declaration



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

STILLÖ Single Lever Shower Mixer taps

Series Hades, Eros, Cronos, Hera, Zeus, Capri N & Kyra N

from

Brass & Fittings, S.L.



Programme:

Programme operator:

EPD registration number:

Publication date:

Valid until:

The International EPD® System, www.environdec.com

EPD International AB

EPD-IES-0023196:001

2025-06-06

2030-05-30

EPD of multiple products, based on the average results of the product group.

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



General information

Programme information

Programme:	The International EPD® System
Address:	EPD International AB Box 210 60 SE-100 31 Stockholm Sweden
Website:	www.environdec.com
E-mail:	info@environdec.com

Accountabilities for PCR, LCA and independent, third-party verification
Product Category Rules (PCR)
CEN standard EN 15804 serves as the Core Product Category Rules (PCR)
Product Category Rules (PCR): <i>PCR 2019:14 Construction products (EN 15804: A2) Version 1.3.4</i>
PCR review was conducted by: <i>The Technical Committee of the International EPD®System. See www.environdec.com/TC 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.</i>
Life Cycle Assessment (LCA)
LCA accountability: <i>Ingurumenaren Kideak Ingenieria (IK ingeniería) ik@ik-ingenieria.com</i>
Third-party verification
Independent third-party verification of the declaration and data, according to ISO 14025:2006, via: ☒ EPD verification by accredited certification body
Third-party verification: <i>Tecnalia R&I Certificación, SL</i> <i>Auditor: Eva Larzabal</i> <i>info@tecnaliacertificacion.com</i>
The certification body is accredited by: <i>ENAC n°125/C-PR283 accreditation.</i>
Procedure for follow-up of data during EPD validity involves third party verifier: ☒ Yes ☐ No

The EPD owner has the sole ownership, liability, and responsibility for the EPD.

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

Company information

Owner of the EPD: Brass & Fittings, S.L.

Contact: jmazcona@brassandfittings.com

Description of the organisation:

Brass & Fittings is a company that, under the Stillö brand, since 2003 has been researching, innovating and distributing the highest quality mixers and bathroom accessories that are marketed through a professional sales channel.

With an eye on offering sustainable, efficient and reliable installation solutions for professionals, Brass & Fittings products are characterized by providing high added value to their customers. With this objective, the effort to share knowledge about products, materials and applications is explained, in a way that contributes to the development of the sector or to the improvement of energy efficiency in its field of work. Similarly, by carrying out training actions with its customers, the innovation generated by the company reaches to end users in an appropriate way to favour the objective of sustainable development.

Since its inception, Brass & Fittings has focused on the quality of all its products, which is accredited by all the AENOR certifications that guarantee that its pipeline products, water circulation products and mixers comply with current regulations. In particular, it has the relevant certifications for the following Stillö products:

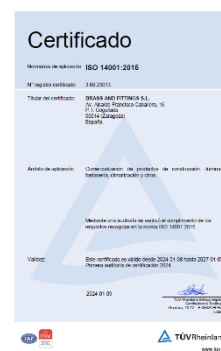
- Taps from Capri Evo series: UNE 19703:2016 y UNE-EN 817:2009.
- Taps from Kyra series: UNE 19703:2016 y UNE-EN 817:2009.

Brass & Fittings has also Aenor certifications for the following product families:

- Plastics piping systems for hot and cold-water installations – Crosslinked polyethylene (PE-X): UNE EN ISO 15875.
- Multilayer piping systems for hot and cold-water installations inside buildings: UNE EN ISO 21003.
- Plastics piping systems for hot and cold-water installations – Polyethylene of raised temperature resistance (PE-RT): UNE EN ISO 22391.
- Water based surface embedded heating and cooling systems: UNE EN ISO 1264.

Additionally, Brass & Fittings has environmental product declarations by International EPD System for their underfloor heating system and Cross-linked polyethylene and multilayer, at the same time as having certifications for its electro-weldable polyethylene accessories, copper accessories and flexible hoses.

Brass & Fittings holds ISO 90001 and ISO 140001 certificates, achieved in 2024, for its facilities:



Name and location of production site(s): Brass & Fittings production sites for the products included in this EPD are located in Zhejiang and Canton (China). The distribution center is located in Zaragoza (Spain).

Product information

Product name: STILLÖ Single Lever Shower Mixer taps

This EPD covers our main Single Lever Shower Mixer tap models from STILLÖ collection: Hades, Eros, Cronos, Hera, Zeus, Capri N and Kyra N.

Product identification and description:

Single Lever Shower Mixer taps are primarily used for controlling of water temperature and flow in a shower. Their simplicity and ease of use allows users to adjust both water parameters together in a single handle.

These Single Lever Shower Mixer taps are shower mixers with a ceramic cartridge and a hand shower at the end of a flexible hose of 1.5 meters. These products include an articulate shower holder and a shower wall bracket in order to adjust the position of the tap parts.

UN CPC code: 42911 – Sinks, wash-basins, baths and other sanitary ware and parts thereof, of iron, steel, copper or aluminium

Geographical scope: The geographical scope of this EPD is global.

LCA information

Functional unit / declared unit: The functional unit is the baseline reference for which all information is collected. In this study, the functional unit is “1 kg of tap”.

This EPD contains multiple products and their results are based on the average results of the product group taken into consideration their production volumes in the year of analysis.

Reference service life: RSL is not relevant for this EPD

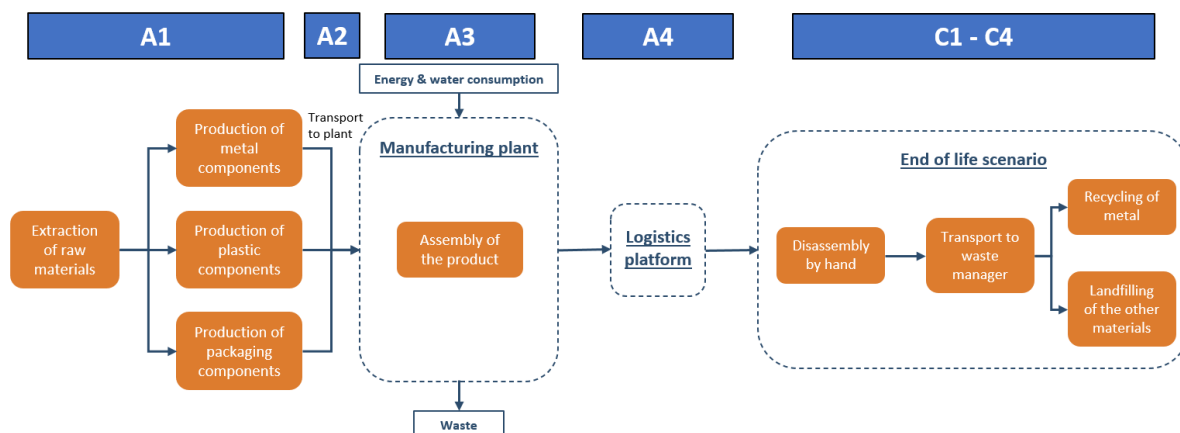
Time representativeness: The data collection from factory (primary data) and electricity mix are from 2023/01/01 to 2023/12/31. In this study, no datasets older than 10 years were used.

Database(s) and LCA software used: All data used to model the process and obtain the Life Cycle Inventory are specific data and have been obtained by measurements made during the year 2023. They are representative of the different processes implemented during the manufacturing process. The data has been measured directly at production factories.

In addition, the most complete and highest quality European life cycle inventory database, Ecoinvent 3.10, has been used, as this database contains the most extensive and updated information and its scope coincides with the geographical, technological and temporal area of the project. The LCA was modelled with Simapro 9.6.0.1.

Description of system boundaries: According to standard UNE-EN 15804_2012+A2_2020 and PCR 2019:14 CONSTRUCTION PRODUCTS (version 1.3.4) the system boundary is Cradle to gate with options, modules C1-C4, module D and optional modules. Optional module A4 has been included, while life cycle stages A5, B1-B7 have been excluded from the LCA study.

System diagram:



Modules declared, geographical scope, share of specific data (in GWP-GHG results) and data variation (in GWP-GHG results):

	Product stage			Construction process stage		Use stage							End of life stage				Resource recovery stage
	Raw material supply	Transport	Manufacturing	Transport	Construction installation	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction 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
Modules declared	X	X	X	X	ND	ND	ND	ND	ND	ND	ND	ND	X	X	X	X	X
Geography	CN	CN	CN	GLO	-	-	-	-	-	-	-	-	GLO	GLO	GLO	GLO	GLO
Specific data used	78.08%			-	-	-	-	-	-	-	-	-	-	-	-	-	-
Variation – products	<10%			-	-	-	-	-	-	-	-	-	-	-	-	-	-
Variation – sites	<10%			-	-	-	-	-	-	-	-	-	-	-	-	-	-

ND: Not declared

More information:

For more information, please, contact: Jose Miguel Azcona Gaztelu (Quality department)
jmazcona@brassandfittings.com

Data quality

The environmental impact of the STILLÖ Single Lever Shower Mixer taps has been calculated based on international standards established for the development of environmental product declarations, such as ISO 14025 for the preparation of the environmental product declaration, ISO 14040 and ISO 14044 for the preparation of the life cycle analysis, and UNE-EN 15804:2012+A2:2020 (MARCH 2020) and the Product Category Rules PCR - "2019:14 Construction products " (Version 1.3.4) for the development of the calculations and the subsequent reports and conclusions.

Data has been collected from 2023/01/01 to 2023/12/31 and is representative of that year. Data for raw material supply, transport to fabrication plant, production (A1-A3) and distribution to the border of the market (module A4) is based on specific data for the manufacturing plant located in China and the warehouse in Spain. Generic background scenarios were used for the downstream processes. SimaPro v9.6.0.1. software was used to prepare the life cycle analysis together with the Ecoinvent 3.10 database, while the characterization factors were obtained from standard EN15804.

Assumptions

The modularity principle, as well as the polluter-payer principle have been followed.

The following assumptions have been made in this EPD:

- ✓ It does not include the manufacturing processes of the capital goods or spare parts and/or maintenance with a life of more than three years.
- ✓ The environmental impact of infrastructure for general management, office, and headquarters operations is not included.
- ✓ The impact caused by people (common activities, travel for work...) will not be considered.
- ✓ It does not include the consumption of natural gas for sanitary hot water from showers and heating system for the comfort of people.
- ✓ The processes associated with fuel production are intrinsically included in the indicators in ECOINVENT's database used in carrying out the LCA.
- ✓ The environmental impact of external transport has been calculated using EURO5 lorries from the ECOINVENT 3.10 database. These lorries have been selected to reflect the most realistic scenario possible.

Cut-off rules

Standard ISO 14025 and PCR -"2019:14 CONSTRUCTION PRODUCTS" indicate that the life cycle inventory data should include a minimum of 95% of the total inputs (materials and energy) for each stage. This cut-off rule does not apply for hazardous materials and substances. No such cut-off criteria have been taken into account in this study.

Allocation

The manufacturing and assembly processes are the same regardless of the model of the tap. For this reason, the additives of the taps as well as the energy consumption required for the manufacturing has been allocated based in the units produced by the manufacturing plant in the year of the study.

Greenhouse gas emission from the use of electricity in the manufacturing phase

East China's electricity mix is considered for the manufacturing process, taken into account the emissions and grid losses for low voltage distribution.

Electricity mix	Amount	Units
China regional mix	1.06	Kg CO ₂ -eqv/kWh

LCA Scenarios and additional technical information

Manufacturing stage (Modules A1-A3):

The manufacturing process includes the extraction of raw materials from the products, transportation to the manufacturing plants and their transformation to obtain the final product. The waste generated is taken to authorized waste managers for treatment.

Distribution (Module A4):

The transport from the manufacturing plant to the border of the market (i.e. Brass&Fittings' last logistics platform in Spain) is included.

Dismantling/demolition (Module C1):

The disassembly of the taps can be carried out manually, without the use of any electric tools.

Transport (Module C2):

With a collection rate of 100%, the transports are carried out by lorry (EURO5) over 50 km.

Waste processing (Modules C3 and C4):

The EoL scenarios have been setup according to default values specified by the European Commission for the Circular Footprint Formula. Taken into account the composition of the included products the only recycled materials are copper with a recycling rate of 95% and steel with 85%. The rest of these metal materials as well as plastics, ceramics and additives are sent to landfill.

Recyclability potentials (Module D):

Module D contains credits from the partial recycling of the metal materials in module C3. The metals are collected and recycled for use in substitution of virgin metals.

Content information

Product components	Weight, kg		Post-consumer material, weight-%	Biogenic material, weight-% of product	Biogenic material, weight kg C/kg declared unit
	Range	Average			
Copper alloys	5.49E-01 – 8.38E-01	5.64E-01	0.00%	0.00%	0.00E+00
Steels	1.20E-01 – 2.08E-01	2.04E-01	0.00%	0.00%	0.00E+00
Plastics	3.12E-02 – 2.29E-01	2.19E-01	0.00%	0.00%	0.00E+00
Ceramic	8.00E-03 – 1.44E-02	1.29E-02	0.00%	0.00%	0.00E+00
Additives	0.00E+00 – 5.61E-06	1.15E-06	0.00%	0.00%	0.00E+00
TOTAL	1.00E+00	1.00E+00	0.00%	0.00%	0.00E+00

Packaging materials	Weight, kg	Weight-% (versus the product)	Weight biogenic carbon, kg C/kg
Cardboard	5.76E-01	57.55%	2.59E-01
Plastic	6.83E-03	0.68%	0.00E+00
Wooden pallet	8.32E-02	8.32%	3.93E-02
TOTAL	6.66E-01	66.56%	2.98E-01

No substances included in the Candidate List of Substances of Very High Concern for authorization under REACH Regulations are present in the analysed products of Brass & Fittings included in this EPD, either above the threshold for registration with the European Chemicals Agency or above 0,1% (wt/wt).

Results of the environmental performance indicators

Mandatory impact category indicators according to EN 15804

Results per functional unit								
Indicator	Unit	A1-A3	A4	C1	C2	C3	C4	D
GWP-fossil	kg CO ₂ eq.	8.76E+00	4.00E-01	0.00E+00	5.37E-03	4.64E-03	1.95E-02	-1.93E+00
GWP-biogenic	kg CO ₂ eq.	1.15E-01	6.30E-05	0.00E+00	9.66E-07	5.44E-03	1.42E-05	-6.25E-03
GWP-luluc	kg CO ₂ eq.	2.59E-02	1.84E-04	0.00E+00	1.84E-06	8.54E-05	1.62E-06	-3.99E-03
GWP-total	kg CO ₂ eq.	8.90E+00	4.01E-01	0.00E+00	5.37E-03	1.02E-02	1.95E-02	-1.94E+00
ODP	kg CFC 11 eq.	7.44E-08	6.29E-09	0.00E+00	1.08E-10	4.31E-11	7.37E-11	-2.29E-08
AP	mol H ⁺ eq.	2.63E-01	7.80E-03	0.00E+00	1.73E-05	5.99E-05	2.14E-05	-3.33E-01
EP-freshwater	kg P eq.	9.12E-04	2.20E-06	0.00E+00	4.18E-08	2.55E-07	3.84E-08	-1.01E-03
EP-marine	kg N eq.	1.62E-02	1.98E-03	0.00E+00	5.82E-06	9.07E-06	2.47E-05	-1.13E-02
EP-terrestrial	mol N eq.	1.99E-01	2.20E-02	0.00E+00	6.40E-05	7.99E-05	8.42E-05	-1.74E-01
POCP	kg NMVOC eq.	6.09E-02	6.21E-03	0.00E+00	2.82E-05	2.78E-05	3.29E-05	-5.20E-02
ADP-minerals&metals*	kg Sb eq.	3.88E-03	7.23E-07	0.00E+00	1.44E-08	8.36E-08	6.08E-09	-5.60E-03
ADP-fossil*	MJ	1.07E+02	5.17E+00	0.00E+00	7.77E-02	1.34E-01	6.31E-02	-2.52E+01
WDP*	m ³	6.37E+00	2.09E-02	0.00E+00	4.76E-04	6.41E-03	-3.34E-02	-4.60E+00
Acronyms	GWP-fossil = Global Warming Potential fossil fuels; GWP-biogenic = Global Warming Potential biogenic; GWP-luluc = Global Warming Potential land use and land use change; ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption							

* Disclaimer: 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.

Additional mandatory and voluntary impact category indicators

Results per functional unit								
Indicator	Unit	A1-A3	A4	C1	C2	C3	C4	D
GWP-GHG ¹	kg CO ₂ eq.	8.90E+00	4.01E-01	0.00E+00	5.37E-03	1.02E-02	1.95E-02	-1.94E+00

¹ This indicator accounts for all greenhouse gases except biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. As such, the indicator is identical to GWP-total except that the CF for biogenic CO₂ is set to zero.

Resource use indicators

Results per functional unit								
Indicator	Unit	A1-A3	A4	C1	C2	C3	C4	D
PERE	MJ	1.73E+01	4.19E-02	0.00E+00	1.23E-03	1.60E+01	6.85E+00	-7.01E+00
PERM	MJ	2.28E+01	0.00E+00	0.00E+00	0.00E+00	-1.60E+01	-6.84E+00	0.00E+00
PERT	MJ	4.01E+01	4.19E-02	0.00E+00	1.23E-03	7.01E-02	9.95E-04	-7.01E+00
PENRE	MJ	9.55E+01	3.82E+00	0.00E+00	7.77E-02	8.38E+00	3.22E+00	-2.51E+01
PENRM	MJ	1.14E+01	0.00E+00	0.00E+00	0.00E+00	-8.25E+00	-3.15E+00	0.00E+00
PENRT	MJ	1.07E+02	3.82E+00	0.00E+00	7.77E-02	1.34E-01	6.40E-02	-2.51E+01
SM	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
NRSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
FW	m ³	1.53E-01	3.80E-04	0.00E+00	1.17E-05	1.96E-04	-7.92E-04	-1.10E-01
Acronyms	PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials; PENRM = Use of non-renewable primary energy resources used as raw materials; PENRT = Total use of non-renewable primary energy re-sources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water							

Waste indicators

Results per functional unit								
Indicator	Unit	A1-A3	A4	C1	C2	C3	C4	D
Hazardous waste disposed	kg	2.97E+00	5.37E-03	0.00E+00	1.13E-04	5.49E-04	2.95E-02	-1.54E+00
Non-hazardous waste disposed	kg	1.02E+02	8.93E-02	0.00E+00	2.26E-03	1.55E-02	1.08E+00	-1.28E+02
Radioactive waste disposed	kg	1.49E-04	7.07E-07	0.00E+00	2.34E-08	1.54E-06	1.65E-08	-6.17E-05

Output flow indicators

Results per functional unit								
Indicator	Unit	A1-A3	A4	C1	C2	C3	C4	D
Components for re-use	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Material for recycling	kg	2.35E-01	0.00E+00	0.00E+00	0.00E+00	7.22E-01	0.00E+00	0.00E+00
Materials for energy recovery	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy, electricity	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy, thermal	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Information on biogenic carbon content

Results per functional unit		
Indicator	Unit	Quantity
Biogenic carbon content in product	kg C	0.00E+00
Biogenic carbon content in packaging	kg C	3.74E-01

Additional environmental information

More information and technical datasheets of the models of taps of STILLÖ collection can be found in the following webpage: <https://www.bystillo.com/>

Author of the Life Cycle Assessment:

IK ingenieria

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48970 Basauri, Bizkaia (Spain)

Information related to Sector EPD

This is an individual EPD®.

Differences versus previous versions

This is the first version of the EPD®.

References

- General Programme Instructions of the International EPD® System. Version 4.0.
- ISO 14020:2000 Environmental labels and declarations-General principles.
- ISO 14025:2010 Environmental labels and declarations-Type III Environmental Declarations-Principles and procedures.
- ISO 14040:2006 Environmental Management-Life Cycle Assessment-Principles and framework.
- ISO 14044:2006 Environmental Management-Life Cycle Assessment-Requirements and guidelines.
- PCR 2019:14 Construction products (EN 15804: A2) version 1.3.4
- EN 15804:2012+A2:2019/AC:2021 Sustainability of construction works-Environmental Product Declarations-Core rules for the product category of construction products

VERIFICATION STATEMENT CERTIFICATE CERTIFICADO DE DECLARACIÓN DE VERIFICACIÓN

Certificate No. / Certificado nº: EPD05507

CERTINALIA S.L.U., confirms that independent third-party verification has been conducted of the Environmental Product Declaration (EPD) on behalf of:

CERTINALIA S.L.U., confirma que se ha realizado verificación de tercera parte independiente de la Declaración Ambiental de Producto (DAP) en nombre de:

BRASS & FITTINGS, S.L.
Polígono Industrial Landaben, Calle A, s/n
31012 Pamplona (Navarra) - SPAIN

for the following products:
para los siguientes productos:

STILLÖ Single Lever Shower Mixer taps
Monomando para duchas STILLÖ

with registration number **EPD-IES-0023196** in the International EPD® System (www.environdec.com).
con número de registro EPD-IES-0023196 en el Sistema Internacional EPD® (www.environdec.com).

it's in conformity with:
es conforme con:

- **ISO 14025:2010 Environmental labels and declarations. Type III environmental declarations.**
- **General Programme Instructions for the International EPD® System v4.0.**
- **PCR 2019:14 Construction products (EN 15804:A2) v.1.3.4.**
- **UN CPC 42911 Sinks, wash-basins, baths and other sanitary ware and parts thereof, of iron, steel, copper or aluminium.**

Issued date / *Fecha de emisión:* 02/06/2025
Update date / *Fecha de actualización:* 02/06/2025
Valid until / *Válido hasta:* 30/05/2030
Serial N° / *Nº Serie:* EPD0550700-E


Carlos Nazabal Alsua
Manager



*This certificate is not valid without its related EPD.
Este certificado no es válido sin su correspondiente EPD.*

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El presente certificado está sujeto a modificaciones, suspensiones temporales y retiradas por CERTINALIA.*

*The validity of this certificate can be checked through consultation in www.certinalia.com.
El estado de vigencia del certificado puede confirmarse mediante consulta en www.certinalia.com.*

