

ENVIRONMENTAL PRODUCT DECLARATION

ALBERO BAMBINO CHILDREN'S FURNITURE



CRADLE
COT
WARDROBE
CHEST OF DRAWERS

PROGRAMME:	THE INTERNATIONAL EPD® SYSTEM, WWW.ENVIRONDEC.COM
PROGRAMME OPERATOR:	EPD INTERNATIONAL AB
REGISTRATION NUMBER:	S-P-01964
PUBLICATION DATE:	2020-03-24
REVISION DATE:	2021-04-19
VALIDITY DATE:	2025-03-11
PCR:	PCR 2012:19, FURNITURE, EXCEPTS SETAS AND MATTRESSES, V.2.01, 2019-08-18
GEOGRAPHICAL SCOPE:	GLOBAL
SYSTEM BOUNDARY:	CRADLE TO GRAVE

THIS DOCUMENT IS COMPLIES WITH ISO 14025 STANDARD AND WITH GENERAL PROGRAMME INSTRUCTIONS FOR THE INTERNATIONAL EPD® SYSTEM, VERSION 3.01 DATED 2019-09-18.

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

ORGANISATION AND PRODUCT DESCRIPTION

Organisation

Albero Bambino SRL is a young company who produces high quality baby furniture. Wood, design, innovative materials, industrial and handcrafted capacities create furniture especially designed for welcoming new lives and walk with them through their childhood. The high quality and importance involved in every creation and detail can be perceived since the first look or touch given.

The quality is certified by the application of these products' specific European laws.

Cots and cradles are manufactured in Friuli Venezia Giulia Italian region while wardrobes and chests of drawers are made in Bosnian.

The wood used is exclusively solid beech and comes entirely from European forests.

Products description

CRADLE



DESIGNED FOR DISASSEMBLY

DIMENSION w96 x d64 x h90 cm

WOOD SOLID BEECH

NET WEIGHT 12.3 kg

COMPOSITION

WOOD 89.5%

STEEL 6.8%

PLASTIC 3.7%

PACKAGING: 100% RECYCLED PAPER AND BIO-DEGRADABLE PLASTIC¹

Tab. 1- Technical features and material used for the cradle

¹ This bio-degradable plastic packaging can end up to recycling but not to composting.

COT²



DESIGNED FOR DISASSEMBLY

DIMENSION w143 x d73 x h96 cm

WOOD SOLID BEECH

NET WEIGHT 25.13 kg

COMPOSITION

WOOD 93.5%

STEEL 2.7%

PLASTIC 3.7%

PACKAGING: 100% RECYCLED PAPER AND BIO-DEGRADABLE PLASTIC

Tab. 2- Technical features and material used for the cot

WARDROBE



DESIGNED FOR DISASSEMBLY

DIMENSION w142 x d60 x h184 cm

WOOD SOLID BEECH

NET WEIGHT 60 kg

COMPOSITION

WOOD 95.3%

STEEL 1.5%

PLASTIC 3.2%

PACKAGING: 100% RECYCLED PAPER AND BIO-DEGRADABLE PLASTIC

Tab. 3- Technical features and material used for the wardrobe

² The declaration shall be valid for both the US model and Europe model.

CHEST OF DRAWERS

DESIGNED FOR DISASSEMBLY



DIMENSION w112 x d60 x h89

WOOD SOLID BEECH

NET WEIGHT 30 kg

COMPOSITION

WOOD 94.1%

STEEL 2.8%

PLASTIC 3.1%

PACKAGING: 100% RECYCLED PAPER AND BIO-DEGRADABLE PLASTIC

Tab. 4- Technical features and material used for the chest of drawers

ENVIRONMENTAL PERFORMANCE DECLARATION

The methodology

The LCA (Life Cycle Assessment), applied according to ISO 14040 e ISO 14044, is a procedure of quantification and evaluation of the environmental impacts of a product / process through the determination of energy, materials used and waste released into the environment during the cycle product life. The calculation of the potential impacts of the product environment was used by the characterization factors indicated in www.environdec.com and additional indicators were also calculated and required by PCR 2012: 19 v.2.013. Ecoinvent database 3.6 (2020) and the Simapro v.9.1.1.1 software were used.

The declared unit

The declared unit (DU) è is **1 furniture** with its weight, including packaging until 15 years.

The data quality

The data can be specific, generic or proxy data. Specific data was used for the Core module collected on the field and provided by Albero Bambino and by the outsourcers reported throughout the year 2020. Upstream modules's data are provided on data provided by the supply chain and by selected generic database data.

Electricity is derived from the Italian mix and from photovoltaics for production in Italy, while it is resulting from the Bosnian mix for production in Bosnia.

For the representation of the transports was used the current transports modeling in the Ecoinvent database 3.6. The types of vehicles and the distances are assigned on real data provided by Albero Bambino and by supplier companies. For the final distribution phase is considered distance of 1000 km by truck. End-of-life data in the downstream module are listed on national scenarios and refer to are generic data. In particular, for the end-of-life of the packaging is regarded as the scenarios of CONAI 2020, for the end-of-life of furniture and its components is considered a scenario for bulky waste of ISPRA 2020. The proxy data used does not exceed the 10% share on each impact category.

The system boundary

The system boundaries is expected from PCR 2012: 19 v.2.01 are divided into three macro modules:

UPSTREAM MODULE or the module that contains "upstream" process compared to the manufacturing of the product, therefore upstream from the company, called by the "cradle at the gate" and which concern the chain of supply;

CORE MODULE or the module that contains the core processes, that is the production of the product and taking place within the company boundaries called "gate to gate";

DOWNSTREAM MODULE or the module that contains the "downstream" processes that is the scenarios of the product from moment in which it leaves the company gate and ends its "life", called "from the gate to the grave".

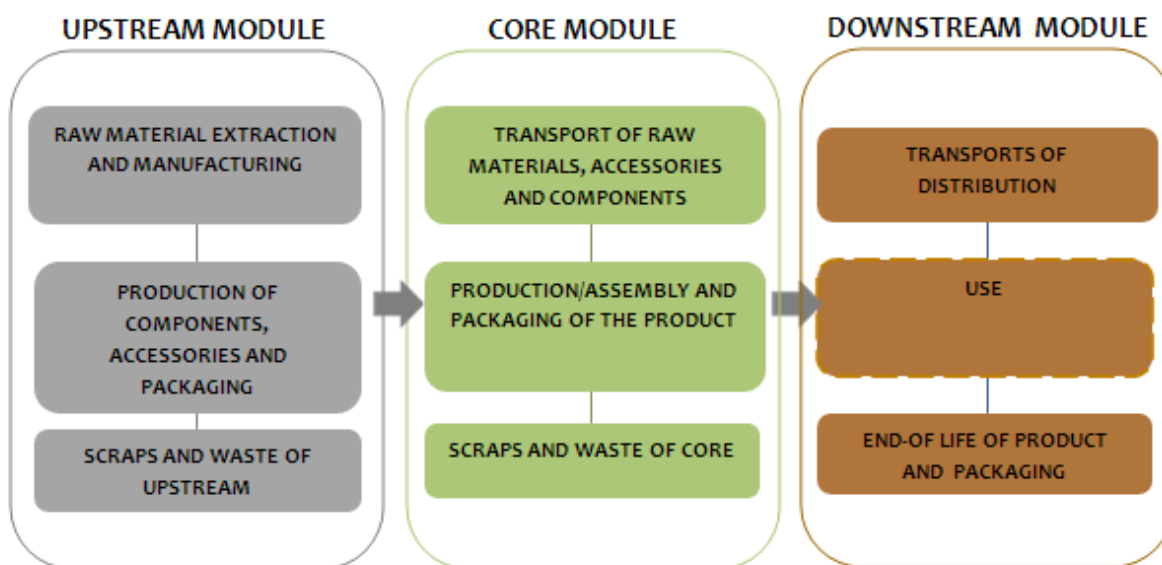


Fig. 1- The system boundary and life cycle inclusion of furniture

In each module is included:

UPSTREAM MODULE

- Production of raw materials, production of accessories and production of textile polyester;
- Production of packaging (primary and secondary) of product final product and primary of semi-processed products
- Scraps, waste generated in this module and end-of-life treatment.

CORE MODULE

- Transport of suppliers to the production plant and to assembly of raw materials, accessories, textile and packaging of final product and of semi-processed products;
- Round trip from and to outsourcers;
- Energy consumption inherent all phases and outsourcers;
- Scraps, waste generated in this module and end-of-life treatment.

DOWNSTREAM MODULE

- Transport of distribution of the final product;
- The scenario of end-of-life treatment of product and packaging.

Exclusions:

The use phase is excluded because the product during its life (15 years) does not require maintenance, so there is no consumption of raw material and energy.

In accordance with PCR have been made of the following exclusions from system boundary:

- construction of the company building and the infrastructure;
- production of machinery;
- maintenance and manufacture of spare parts that have life cycle greater than three years;
- the activities and staff travel;
- tertiary packaging (pallet) of product.

Have been excluded by cut-off the packaging of paints, of bolts and screws and of accessories.

Potential environmental impacts and indicators

Calculated potential impacts and indicators of waste, resource and output flows are indicated for three modules: UPSTREAM MODULE (**UP.**), CORE MODULE (**CORE**), DOWNSTREAM MODULE (**DOWN.**) for four children's furniture.

The results are expressed in the Declared Unit (**DU**) equal to **1 unit of product**.

See following legend to acronyms. [Note: 2.5E+01 = 25 and 4.5E-01 = 0.45].

LEGEND		
ENVIRONMENTAL IMPACTS		
Global Warming Potential ₁₀₀		GWP ₁₀₀
	Fossil	Fossil
	Biogenic ³	Bio
	Land use and land transformation	Land Use
Acidification Potential		AP
Eutrophication Potential		EP
Formation Potential of Tropospheric Ozone		POCP
Abiotic Depletion Potential – Elements		ADPe
Abiotic Depletion Potential – Fossil Fuels		ADPff
Water Scarcity Footprint		WSF
Human toxicity, cancer impacts		HT-c
Human toxicity, non cancer impacts		HT-nc
Fresh water ecotoxicity		FWE
Land use		LU
USE OF RESOURCES		
Primary energy resources -Renewable		PERR
	Used as energy carrier	energy carrier
	Used as raw material	raw material
Primary energy resources- Non-renewable		PERNR
	Used as energy carrier	energy carrier
	Used as raw material	raw material
Secondary material		SM
Renewable secondary fuels		RSF
Non-Renewable secondary fuels		NRSF
Net use of fresh water		FW
WASTE PRODUCTION AND OUTPUT FLOWS		
Hazardous waste disposed		HWD
Non-Hazardous waste disposed		NHWD
Radioactive waste disposed		RWD
Components for reuse		CFR
Materials for recycling		MFR
Materials for energy recovery		MFER
Exported energy, electricity		EEE
Exported energy, thermal		EET

Tab. 5- Legend

³ Methane biogenic

CRADLE						
INDICATORS		UNITS	TOT.	UP.	CORE	DOWN.
GWP ₁₀₀	Fossil	kg CO ₂ eq	2.0E+01	9.5E+00	6.7E+00	4.1E+00
	Bio		3.5E-01	6.6E-02	3.6E-03	2.8E-01
	Land use		8.6E-02	8.3E-02	1.4E-03	1.7E-03
	Total		2.1E+01	9.6E+00	6.7E+00	4.4E+00
AP		kg SO ₂ eq	7.7E-02	4.5E-02	1.6E-02	1.6E-02
EP		kg PO ₄ ³⁻ eq	2.6E-02	1.8E-02	3.7E-03	4.5E-03
POCP		kg NMVOC eq	7.6E-02	4.6E-02	1.6E-02	1.5E-02
ADPe		kg Sb eq	1.5E-03	1.2E-03	9.6E-05	1.4E-04
ADPff		MJ	3.1E+02	1.5E+02	9.9E+01	5.4E+01
WSF		m ³ eq	7.0E+00	6.3E+00	5.9E-01	1.8E-01
HT-c		cases	2.7E-06	2.4E-06	1.4E-07	1.7E-07
HT-nc		cases	5.8E-06	3.4E-06	5.7E-07	1.8E-06
FWE		PAF m ³ day	4.4E+05	2.1E+05	3.5E+04	1.9E+05
LU		Species y	1.6E-07	1.6E-07	9.4E-10	1.2E-09
PERR	Energy carrier	MJ	4.2E+02	4.1E+02	6.9E+00	1.0E+00
	Raw material		0.0E+00	0.0E+00	0.0E+00	0.0E+00
	Total		4.2E+02	4.1E+02	6.9E+00	1.0E+00
PERNR	Energy carrier		3.3E+02	1.6E+02	1.1E+02	5.9E+01
	Raw material		2.0E+01	2.0E+01	0.0E+00	0.0E+00
	Total		3.5E+02	1.8E+02	1.1E+02	5.9E+01
SM		kg	1.5E+00	1.5E+00	0.0E+00	0.0E+00
RSF		MJ	0.0E+00	0.0E+00	0.0E+00	0.0E+00
NRSF		MJ	0.0E+00	0.0E+00	0.0E+00	0.0E+00
FW		m ³	1.2E-02	7.9E-03	3.1E-03	1.3E-03
HWD		kg	0.0E+00	0.0E+00	0.0E+00	0.0E+00
NHWD		kg	2.2E+00	0.0E+00	0.0E+00	2.2E+00
RWD		kg	1.0E-03	3.4E-04	3.1E-04	3.8E-04
CFR		kg	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MFR		kg	1.7E+01	4.2E-01	4.1E+00	1.3E+01
MFER		kg	4.8E+00	0.0E+00	4.1E+00	7.0E-01
EEE		MJ	7.4E+00	0.0E+00	7.4E+00	0.0E+00
EET		MJ	0.0E+00	0.0E+00	0.0E+00	0.0E+00

Tab. 6- Environmental impact, waste and output flows - Cradle-

COT						
INDICATORS		UNITS	TOT.	UP.	CORE	DOWN.
GWP ₁₀₀	Fossil	kg CO ₂ eq	3.7E+01	1.6E+01	1.3E+01	8.0E+00
	Bio		6.8E-01	1.2E-01	1.1E-02	5.5E-01
	Land use		1.6E-01	1.6E-01	2.7E-03	3.3E-03
	Total		3.7E+01	1.6E+01	1.3E+01	8.6E+00
AP		kg SO ₂ eq	1.4E-01	7.5E-02	3.3E-02	3.1E-02
EP		kg PO ₄ ⁻⁻⁻ eq	4.5E-02	2.9E-02	7.3E-03	8.8E-03
POCP		kg NMVOC eq	1.3E-01	7.3E-02	3.1E-02	2.9E-02
ADPe		kg Sb eq	1.9E-03	1.4E-03	1.9E-04	2.7E-04
ADPff		MJ	5.5E+02	2.6E+02	1.9E+02	1.1E+02
WSF		m ³ eq	1.2E+01	1.1E+01	1.3E+00	3.5E-01
HT-c		cases	2.9E-06	2.3E-06	2.7E-07	3.4E-07
HT-nc		cases	8.7E-06	3.8E-06	1.1E-06	3.7E-06
FWE		PAF m ³ day	7.2E+05	2.6E+05	6.8E+04	3.9E+05
LU		Species y	3.6E-07	3.5E-07	2.0E-09	2.4E-09
PERR	Energy carrier	MJ	9.1E+02	9.0E+02	1.4E+01	2.0E+00
	Raw material		7.5E-03	7.5E-03	0.0E+00	0.0E+00
	Total		9.1E+02	9.0E+02	1.4E+01	2.0E+00
PERNR	Energy carrier		5.9E+02	2.6E+02	2.1E+02	1.2E+02
	Raw material		2.9E+01	2.9E+01	0.0E+00	0.0E+00
	Total		6.2E+02	2.9E+02	2.1E+02	1.2E+02
SM		kg	3.0E+00	3.0E+00	0.0E+00	0.0E+00
RSF		MJ	0.0E+00	0.0E+00	0.0E+00	0.0E+00
NRSF		MJ	0.0E+00	0.0E+00	0.0E+00	0.0E+00
FW		m ³	2.7E-02	1.7E-02	7.5E-03	2.6E-03
HWD		kg	0.0E+00	0.0E+00	0.0E+00	0.0E+00
NHWD		kg	4.3E+00	0.0E+00	0.0E+00	4.3E+00
RWD		kg	1.9E-03	5.3E-04	6.2E-04	7.4E-04
CFR		kg	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MFR		kg	3.5E+01	9.0E-01	9.1E+00	2.5E+01
MFER		kg	1.0E+01	0.0E+00	9.1E+00	1.3E+00
EEE		MJ	1.4E+01	0.0E+00	1.4E+01	0.0E+00
EET		MJ	0.0E+00	0.0E+00	0.0E+00	0.0E+00

Tab. 7- Environmental impact, waste and output flows - COT-

WARDROBE						
INDICATORS		UNITS	TOT.	UP.	CORE	DOWN.
GWP ₁₀₀	Fossil	kg CO ₂ eq	1.8E+02	3.6E+01	1.3E+02	1.7E+01
	Bio		1.3E+00	3.1E-01	3.1E-02	9.9E-01
	Land use		3.2E-01	3.0E-01	1.1E-02	7.4E-03
	Total		1.8E+02	3.6E+01	1.3E+02	1.8E+01
AP		kg SO ₂ eq	2.4E+00	2.5E-01	2.1E+00	7.0E-02
EP		kg PO ₄ ---eq	8.8E-01	7.0E-02	7.9E-01	1.9E-02
POCP		kg NMVOC eq	6.9E-01	1.6E-01	4.6E-01	6.5E-02
ADPe		kg Sb eq	4.7E-03	3.4E-03	6.6E-04	6.1E-04
ADPff		MJ	1.9E+03	5.2E+02	1.2E+03	2.4E+02
WSF		m ³ eq	3.8E+01	2.5E+01	1.3E+01	7.9E-01
HT-c		cases	2.3E-05	3.7E-06	1.8E-05	7.7E-07
HT-nc		cases	6.0E-05	9.3E-06	4.2E-05	8.5E-06
FWE		PAF m ³ day	4.0E+06	7.0E+05	2.4E+06	9.3E+05
LU		Species y	5.9E-07	5.8E-07	7.1E-09	5.4E-09
PERR	Energy carrier	MJ	1.7E+03	1.5E+03	1.9E+02	4.4E+00
	Raw material		0.0E+00	0.0E+00	0.0E+00	0.0E+00
	Total		1.7E+03	1.5E+03	1.9E+02	4.4E+00
PERNR	Energy carrier		2.2E+03	6.2E+02	1.3E+03	2.6E+02
	Raw material		0.0E+00	0.0E+00	0.0E+00	0.0E+00
	Total		2.2E+03	6.2E+02	1.3E+03	2.6E+02
SM		kg	8.5E+00	8.5E+00	0.0E+00	0.0E+00
RSF		MJ	0.0E+00	0.0E+00	0.0E+00	0.0E+00
NRSF		MJ	0.0E+00	0.0E+00	0.0E+00	0.0E+00
FW		m ³	7.9E-02	5.9E-02	1.4E-02	6.3E-03
HWD		kg	0.0E+00	0.0E+00	0.0E+00	0.0E+00
NHWD		kg	9.8E+00	0.0E+00	0.0E+00	9.8E+00
RWD		kg	5.1E-03	1.4E-03	2.0E-03	1.7E-03
CFR		kg	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MFR		kg	5.9E+01	4.0E-02	3.5E+00	5.6E+01
MFER		kg	3.9E+01	0.0E+00	3.6E+01	2.5E+00
EEE		MJ	0.0E+00	0.0E+00	0.0E+00	0.0E+00
EET		MJ	0.0E+00	0.0E+00	0.0E+00	0.0E+00

Tab. 8- Environmental impact, waste and output flows - WARDROBE-

CHEST OF DRAWERS						
INDICATORS		UNITS	TOT.	UP.	CORE	DOWN.
GWP ₁₀₀	Fossil	kg CO ₂ eq	1.2E+02	2.1E+01	9.3E+01	8.9E+00
	Bio		8.0E-01	1.8E-01	2.2E-02	5.9E-01
	Land use		1.7E-01	1.6E-01	6.5E-03	3.8E-03
	Total		1.2E+02	2.1E+01	9.3E+01	9.5E+00
AP		kg SO ₂ eq	1.7E+00	1.5E-01	1.5E+00	3.6E-02
EP		kg PO ₄ ---eq	6.4E-01	4.2E-02	5.9E-01	9.9E-03
POCP		kg NMVOC eq	4.6E-01	9.1E-02	3.3E-01	3.4E-02
ADPe		kg Sb eq	2.5E-03	1.8E-03	3.7E-04	3.2E-04
ADPff		MJ	1.3E+03	3.1E+02	8.1E+02	1.2E+02
WSF		m ³ eq	2.4E+01	1.4E+01	9.3E+00	4.1E-01
HT-c		cases	1.7E-05	2.9E-06	1.4E-05	3.9E-07
HT-nc		cases	4.1E-05	6.0E-06	3.1E-05	4.3E-06
FWE		PAF m ³ day	2.7E+06	4.3E+05	1.8E+06	4.7E+05
LU		Species y	3.0E-07	2.9E-07	4.3E-09	2.8E-09
PERR	Energy carrier	MJ	8.9E+02	7.5E+02	1.4E+02	2.3E+00
	Raw material		0.0E+00	0.0E+00	0.0E+00	0.0E+00
	Total		8.9E+02	7.5E+02	1.4E+02	2.3E+00
PERNR	Energy carrier		1.4E+03	3.6E+02	9.3E+02	1.3E+02
	Raw material		9.8E+00	9.8E+00	0.0E+00	0.0E+00
	Total		1.4E+03	3.7E+02	9.3E+02	1.3E+02
SM		kg	5.1E+00	5.1E+00	0.0E+00	0.0E+00
RSF		MJ	0.0E+00	0.0E+00	0.0E+00	0.0E+00
NRSF		MJ	0.0E+00	0.0E+00	0.0E+00	0.0E+00
FW		m ³	4.6E-02	3.3E-02	9.8E-03	3.2E-03
HWD		kg	0.0E+00	0.0E+00	0.0E+00	0.0E+00
NHWD		kg	5.0E+00	0.0E+00	0.0E+00	5.0E+00
RWD		kg	2.8E-03	8.4E-04	1.1E-03	8.6E-04
CFR		kg	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MFR		kg	3.1E+01	2.4E-02	2.1E+00	2.9E+01
MFER		kg	1.9E+01	0.0E+00	1.8E+01	1.4E+00
EEE		MJ	0.0E+00	0.0E+00	0.0E+00	0.0E+00
EET		MJ	0.0E+00	0.0E+00	0.0E+00	0.0E+00

Tab. 9- Environmental impact, waste and output flows - CHEST OF DRAWERS-

Differences versus previous versions

This is the reference year of data is updated at 2020; the version of Ecoinvent database is update at v.3.6.

References

- General Programme Instructions for the International EPD® system version 3.01, 2019-09-18
- ISPRA, Rapporto Nazionale dei Rifiuti, n. 331/2020, ISBN: 978-88-448-1030-6
- LCA-lab srl, “Life Cycle Assessment (LCA) degli arredi per l'infanzia di Albero Bambino srl, ai fini della sorveglianza EPD”, RT-240 rev.01 del 19/04/2021, pp.1-51, Bologna, Italy
- PCR 2012:19 Furniture, excepts setas and mattresses, UN CPC 3812/3813/3814, version 2.01, 2019-08-18
- www.ecoinvent.ch
- www.alberobambino.it

INFORMATION ABOUT PROGRAMME AND VERIFICATION

The owner of EPD (Albero Bambino) has exclusive property and responsibility of EPD.

EPDs within the same product category but from different programmes may not be comparable.

PROGRAMME:	The International EPD® System, EPD International AB, Box 210 60, SE-100 31 Stockholm, Sweden. www.environdec.com , info@environdec.com
EPD REGISTRATION NUMBER:	S-P-01964
PUBLISHED:	2020-03-24
VALID UNTIL:	2025-03-11
PRODUCT CATEGORY RULES:	PCR 2012:19 FURNITURE, EXCEPTS SETAS AND MATTRESSES Version 2.01
PRODUCT GROUP CLASSIFICATION:	UN CPC 3812/3813/3814
REFERENCE YEAR FOR DATA:	2020
GEOGRAPHICAL SCOPE:	Global

PCR review was conducted by: *Technical Committee of the International EPD® System. Chair: Gorka Benito Alonso*

Independent third-party verification of the declaration and data, according to ISO 14025:2010:

☐ EPD process certification ☒ EPD verification

Third party verifier:

 CERTIQUALITY srl, Via G.Gardino n.4, Milano , Accredited by: ACCREDIA, n°003H

Procedure for follow-up of data during EPD validity involves third party verifier:

☒ Yes ☐ No

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