ENVIRONMENTAL PRODUCT DECLARATION

In accordance with
ISO 14025 and EN 15804

SHOWER ENCLOSURES

EPD®
THE INTERNATIONAL EPD® SYSTEM

FLA
FEDERLEGNOARREDO

EPD Program	The International EPD® System
CPC Code	37117
Based on	PCR 2017:03, Version 1.1 – Shower Enclosures
Declaration number	S-P-01811
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EPD expire on	2024-12-19
Market coverage	Global
Representativeness	Italy

SUMMARY

FEDERLEGNOARREDO

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FederlegnoArredo is the Italian Federation of Industries of wood and furniture. As a member of Confindustria, it takes part to the process of development of Italian society, contributing to the realization of an innovative business system, projected in an international dimension, sustainable and able to promote the economic, social, civil and cultural growth of the country. All the activity of the Federation, which today involves around 2,300 companies contained in 11 associations like “Assobagno”, is defined by an identity and one mission that can be summarized in the claim "Meet to grow".

ASSOBAGNO by FEDERLEGNOARREDO

Assobagno by FederlegnoArredo is the association of the main Italian bathroom furniture manufacturers within the Confindustria system.
It associates 150 companies in the sector with an overall turnover of around 1,400 million euros and a representation on the Italian market of 53% of the turnover of the entire bathroom furniture sector, estimated at over 2.6 billion euros.
The association aims to build the culture of bathroom furnishings and achieve a specific identity as a sector, involving as many companies as possible in association life to share activities and projects and grow together through debate, discussion and sharing of professional experiences.

OWNER COMPANIES

Arblu® www.arblu.com	Arblu, present on the market since 1996, has a dynamic and creative staff, represents, in the production of bathroom furnishing elements, a reality open to innovation and attentive to the new living dynamics. Through its wide range of products, Arblu today represents the Made in Italy solution for the needs of harmony and well-being of the contemporary bathroom.
calibe www.calibe.it	Calibe, close to Bologna, is well established in the district where italian engineering skills excel. Such creativity, along with made in Italy values, backs the company's design philosophy. Imagination and concreteness, painstaking care for detail and sense for beauty. All this supported by great flexibility, which puts Calibe in the position to carry out major contract orders, or to produce unique bespoke models to fit in private dwellings and spaces.
duka® www.duka.it	Our slogan "shower emotion" is the heart of our activities: individual tailor-made projects, high quality raw materials and innovative technologies have inspired us from the beginning. Products that represent the interaction of comfort and versatility, lightness and strength, luxury and fashion trends. Many colors for the frame and various types of glass are able to highlight the characteristics of the shower enclosure. We carry out "shower emotion".

OWNER COMPANIES

www.inda.net	Inda the story of a successful Italian company driven by a true entrepreneurial spirit. Inda is an industrial group with a well established leadership in the international markets, 70 years of experience dedicated to the support of the customers, the expertise of Inda is based on a deep competence to learn and to understand the needs and the tastes of the diverse markets which change and evolve continuously. Creativity, originality and distinctive elegance are elements which identify and express the design of Inda.
www.lacus.it	Established in 2008, Lacus has its headquarters in Sassuolo Modena. Lacus designs its own range of shower enclosures, standing out for innovative solutions, with international patents such as Quick Installation in 2014 and Capri in 2018. Harmony, Emotion and Innovation are LACUS' designers' targets. In the context of the Customer Satisfaction Program, LACUS introduced "Shop on-line" and now, the retail customers can connect anytime and anywhere in order to check availabilities and place orders.
www.novellini.it	The Novellini Group is European leader in the production of shower enclosures, complete cubicles and whirlpool baths, with plants in Italy and France, branch offices in major European countries and sales offices around the world. Family values underlie and steer the Novellini family business. Generation after generation. Passion and commitment, innovation and creativity, as well as a relentless attention to the customer needs, these are the values Novellini pursues.
www.megius.com	Megius, since 1976, has been producing and promoting unique shower solutions that are affordable to anyone, designed to represent the Italian high school bathroom furniture in bathrooms in Italy and around the world. In more recent times it has also been synonymous with a wellness product, as the feeling of feeling good at home and in spaces outside of your home is increasingly widespread.

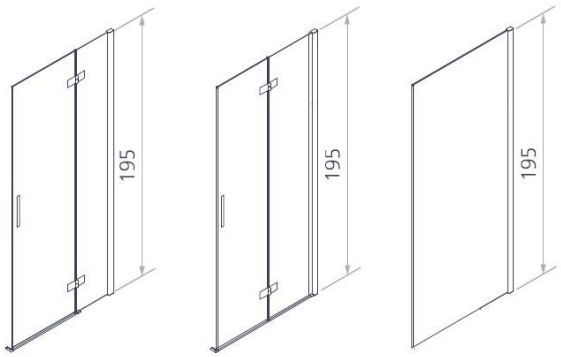
OWNER COMPANIES

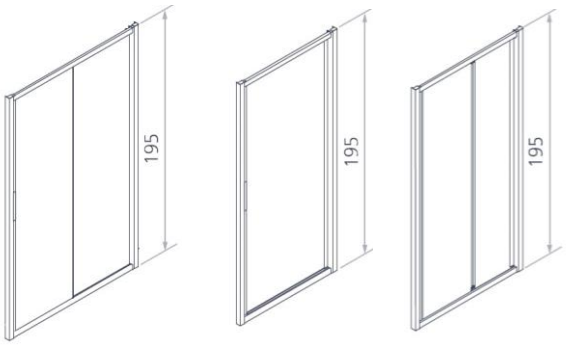
RARE www.raresistemidoccia.com	RARE was born in 1968 in Cairate, Varese, northern Italy. In 1983, thanks to the founder, Renato Ravazzani, RARE began producing shower enclosures, following four fundamental elements: design, quality, functionality and safety. In 2015, RARE broadens the Quality Management System, UNI EN, ISO 9001. Use the best and eco-compatible materials: aluminum, glass, steel, 100% recyclable. The shower enclosures are CE marked, according to the UNI EN 14428: 2015 directive.
samo www.samo.it	With over 250 employees, 55,000 square meters of production facilities spread over 4 sites, which generate a production potential of 2,000 shower cabins per day, the Samo Group is recognized as a leading player in the sector, in Italy thanks to a widespread distribution, abroad by virtue of a branch structure in France, Spain and distributors that expand their presence around the world. All our products are designed, processed and assembled in our factory in Bonavigo (VR) while the glass sheets are produced in our glass factory in Pagazzano (BG).
vismara vetro www.vismaravetro.it	Vismaravetro is a leading Italian company, specialized in the integrated production of tempered glass shower enclosures, with standard and at the same time flexible and customized products. Vismaravetro is the only Italian manufacturer of shower enclosures that completes the entire production cycle in its factories. All this allows Vismaravetro to be 100% flexible with respect to customer requests. The company is therefore specialized in the production of both customized high quantities and individual units.

PRODUCTS INFORMATION

Type 1: FRAME

The first type of shower enclosure has a complete metal frame, vertical and horizontal, and a sliding opening useful for optimizing space. The doors are hung from the upper track by means of trolleys fixed directly to the glass. The average dimensions of the considered products are 90 x 90 x 195 (h); the glass panels are 6 mm thick.



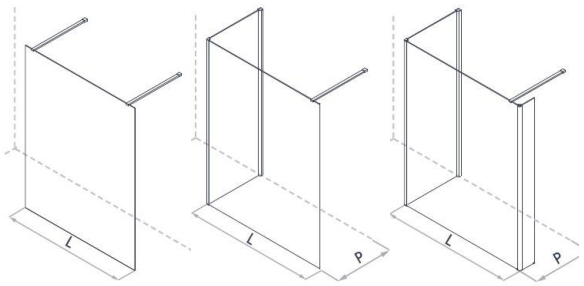


Type 2: HALF-FRAME

The shower enclosures of this type are characterized by a fixed side and a hinged opening; the door is supported by 2 hinges or by a continuous hinge, anchored to the wall or on a fixed glass side. In all products the door opens outwards or in both directions and the closure is magnetic. The half-frame name is given by the presence of a partial frame only on the vertical sides of the glass panels and can be completely absent on the side with the hinges of the doors. The average dimensions of the considered products are 80 x 120 x 195 (h); the glass panels are 6 mm thick.

Type 3: WALK-IN

The walk-in shower enclosures are characterized by fixed glass elements that leave a wide entrance open, generally without doors. This typology is characterized by the absence of whole frames but generally involves the presence of fixing bars and reinforcements to give stability to the glass panels. The average size of the considered products is 120 x 205 (h); the glass panels are 8 mm thick to increase their rigidity.



The side table shows the average content of materials for each type of shower enclosure.

COMPONENTS	FRAME	HALF-FRAME	WALK-IN
Glass panels	84,0%	89,0%	93,0%
Metal profiles	12,5%	8,0%	5,0%
Other components	3,5%	3,0%	2,0%

Type 1: FRAME

COMPANY	PRODUCT	PRODUCT CODE
ARBLU	VEGA	876 31527 01 – 02
CALIBE	CHIA	753CHA
DUKA	NATURA 4000	AR-E2 L/R
INDA	NEW CLAIRE	B56140AN01
LACUS	VULCANO EVO	LASP3-90-QI+LASP3-90-QI
MEGIUS	LIVE A	LVA12090/RP
NOVELLINI	ZEPHYROS	ZEPHYR2P116-1K + ZEPHYRF78-1K
RARE	-	-
SAMO	CEE ART	B0920ULUTR
VISMARA	SERIE 7000	ZZA042109002000D+S

Type 2: HALF-FRAME

COMPANY	PRODUCT	PRODUCT CODE
ARBLU	SEI ANGOLO	873 39650+873 76210
CALIBE	SILIS	804SIL+403FIS
DUKA	GALLERY 3000 NEW	GR-TW2 L+GR-W2 R
INDA	CLAIRE DESIGN	B57620TT01+B5806STT01
LACUS	CAPRAIA	LRBA120+LRBAF80
MEGIUS	WEB 2,0	B2A12120/RP+B1F00080/RP
NOVELLINI	LOUVRE	LOUVNGF120LS-1K + LOUVNF80-1K
RARE	CORNER A11	A11#PXXA0E3C9E02CC13
SAMO	POLARIS	B3906ULUTR+B3866ULUTR
VISMARA	SINTESI	SSA042111801960/DS + SSF042107801960/DS

Type 3: WALK-IN

COMPANY	PRODUCT	PRODUCT CODE
ARBLU	OTTO Configurazione C4	888 71422
CALIBE	TRASPARENZA	507DIV
DUKA	LIBERO 5000 INLAB	F-G2 L/R+FR-G2 L/R
INDA	WALKIN	B2593AAN01
LACUS	FILICUDI	LOSA-E1208
MEGIUS	ETER	DUSA0123/RP
NOVELLINI	KUADRA H	KUADH120-1K
RARE	OPEN F01	F01#PXX0AE3C9E02CC13S0
SAMO	OPEN SIDE	B4084ULUTR
VISMARA	SK-IN	PSK042111802000

LCA INFORMATION

Methodology

The environmental performances of the shower enclosures reported into the EPD are based on the analysis of their life cycle, carried out through the application of the Life Cycle Assessment (LCA) method and according to the analysis structure provided by UNI EN ISO 14040:2006, UNI EN ISO 14044:2006, the references provided by UNI EN ISO 14025:2010 and UNI EN 15804:2014, the *PCR 2017:03, Version 1.1 – Shower Enclosures* and the *General Programme Instructions for The International EPD® System, Version 3.0*.

Declared unit

The declared unit corresponds to 1 m^2 of the surface of the shower enclosure packed at the gate of the producer, including all its components to ensure its perfect operation and the complete water retention.

System Boundaries

The system boundaries define the scope of the analysis, identifying the processes that are included into the study from what is not involved. The below list describes the processes included into the system boundaries for each life phase following the same approach for all the analysed products.

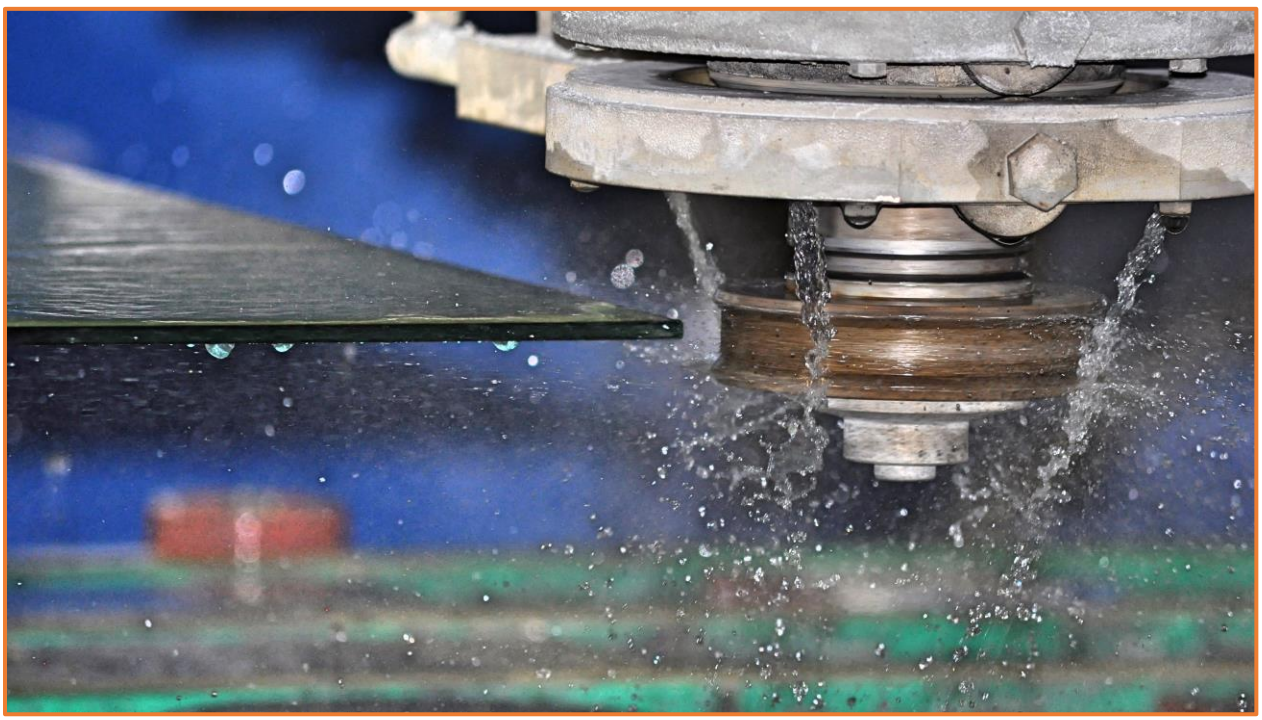
- *Phase A1 – Raw materials:* this phase includes the procurement of all the raw materials, the semi-finished products and the components necessary for the production of the shower enclosures. It also includes the production of the packaging of the finished products.
  The main stages are the production of the glass sheets that will be become the glass panels in the final product; they have large dimension, usually 6 x 4 m, and are produced by a few specialized companies in Europe. Beside this, the production of aluminum or steel profiles that will constitute the frame of the shower enclosures. The profiles are produced in extruded aluminum or bent steel bars, usually 6 m long. The last point is about the production of the ancillary components, such as handles, hinges for hinged doors, trolleys for sliding doors, small components and accessories. These components are made of multiple materials such as steel, aluminum, brass, zama, polyethylene, polypropylene, ABS, nylon, rubber and are specific to each model, with a greater presence in framed solutions.
- *Phase A2 – Transport:* this phase includes the transport of all the components necessary for the shower enclosure production, the transport of the packaging of the finished product and of the production waste.

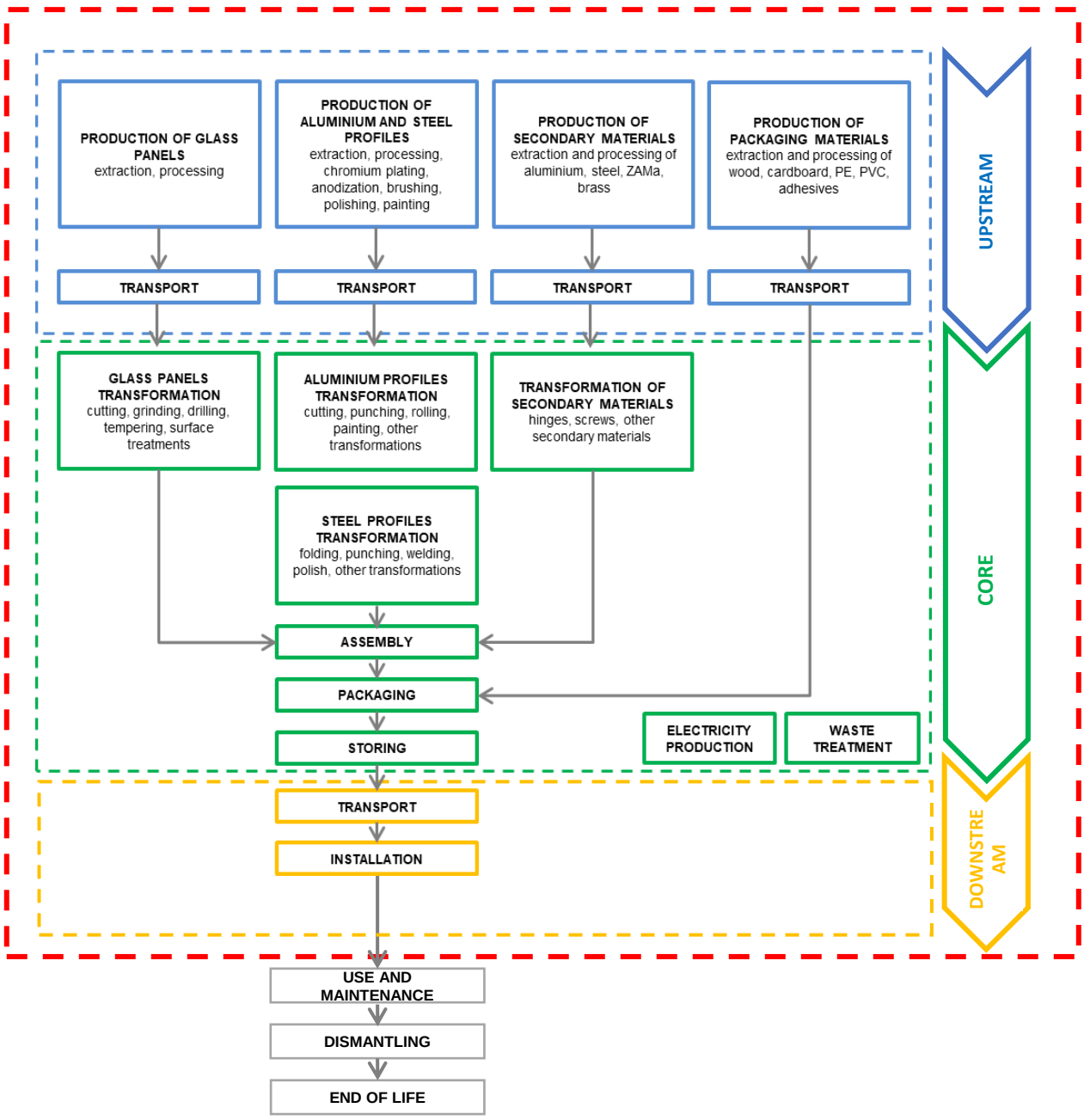
System Boundaries

- *Phase A3 – Production:* this phase includes the treatment of the raw materials and the semi-finished products to assembly the shower enclosures, till the packaging of the finished product. It also takes into account the treatment of waste up to their final destination.
- *Phase A4 – Transport:* this phase includes the transport of the shower enclosures from the production sites to an average final customer.
- *Phase A5 – Installation:* this phase includes the installation of the shower enclosures and the treatment of the installation waste up to their final destination.

The environmental study and the EPD cover the *from cradle to gate with option* scenario, i.e. from the cradle to the gate with additional options, as it includes both the phases of extraction of raw materials and production of the shower enclosures and the sale of the finished product according to the market scenario of the companies and the installation.

Product stage			Construction process stage		Use stage							End of life stage				Resource recovery stage
Raw materials	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
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
X	X	X	X	X	MND	MND	MND	MND	MND	-	-	MND	MND	MND	MND	MND





No substances included in the "Candidate List of Substances of Very High Concern for Authorisation" under the REACH regulations are included in the composition of the products, above the threshold for registration with the European Chemicals Agency.

Inventory data

All the information about the life cycle of the 29 products covered by the study were acquired in the year 2017 and confirmed in 2018.

The inventory was created by assuming the bill of quantities of each shower enclosures, provided by the 10 companies together with the energy consumptions and the waste due to the production process. The transport distance were calculated according to the market scenarios and to plausible distances.

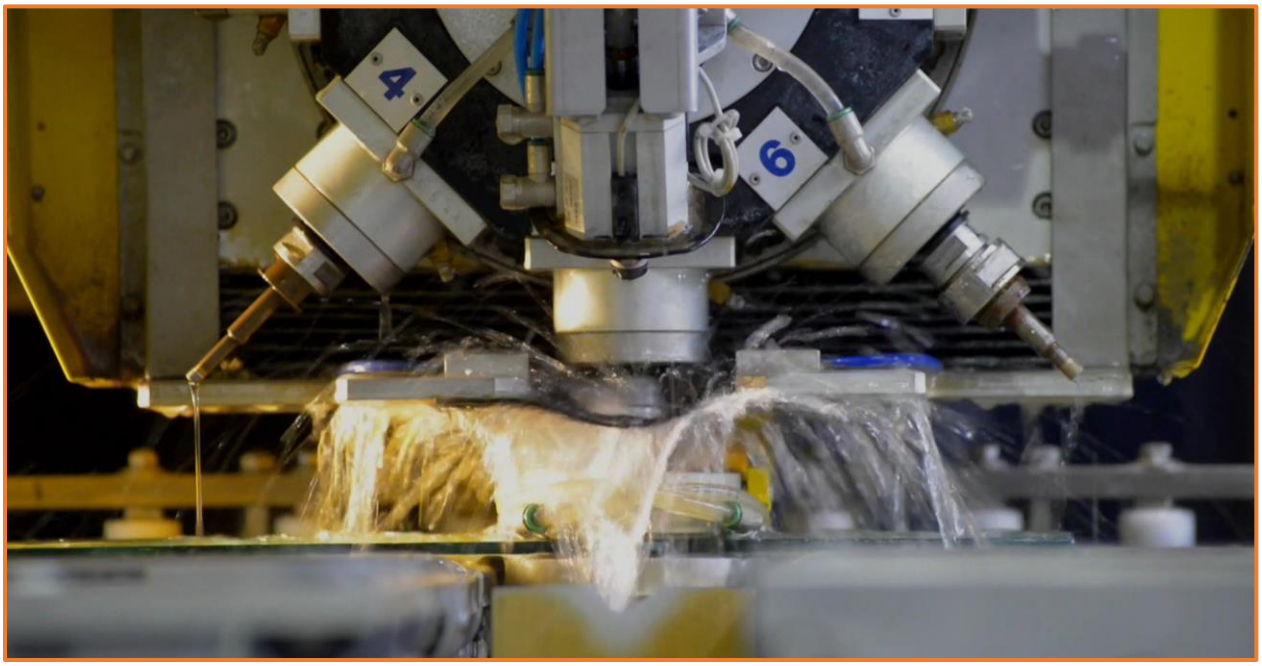
Environmental performances

The production processes of raw materials and semi-finished products and the energy mix were described with the Ecoinvent 3.1 database items, appropriately selected and composed to guarantee both technological and temporal representativeness.

The results deriving from the evaluation of each model were compared to the front surface of the specific shower enclosure in order to be able to express the environmental impacts according to the declared unit (1 m^2 of the surface of the shower enclosure). Taking into account the number of pieces produced for each model and the total number of pieces produced for the type in question, the weighted average of the environmental profile was calculated for each of the three product categories.

The results reported in the following paragraphs are therefore to be understood as average reference values for each category, representative of the production scenario under assessment.

Since the production processes are very close among companies and the amount of glass on the Declared unit is similar, the variance among the specific environmental values and the average reference values is mainly due to the amount of the metallic frame, which depends on the design, aesthetic and functional characteristics and of each product.

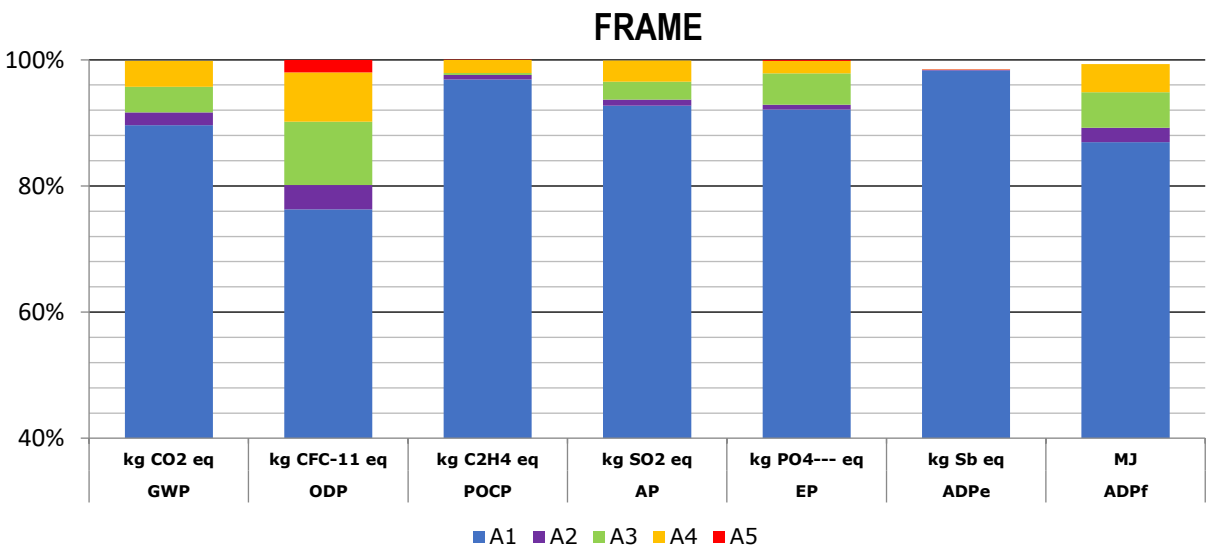


ENVIRONMENTAL PERFORMANCE

Type 1: FRAME

Environmental impacts

CATEGORIES	UNITS	TOTAL	A1	A2	A3	A4	A5
Global warming	kg CO_2 eq.	4,19E+01	3,69E+01	7,86E-01	2,39E+00	1,88E+00	-6,32E-02
of which GWP Bio	kg CO_2 eq.	2,62E+00	1,88E+00	1,64E-03	7,22E-01	2, 64E-03	9,42E-03
of which $GWP_{Land\ Use}$	kg CO_2 eq.	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
of which $GWP_{Land\ Transf.}$	kg CO_2 eq.	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Ozone layer depletion	kg CFC-11 eq.	4,11E-06	3,08E-06	1,48E-07	4,59E-07	3,51E-07	7,98E-08
Photochemical oxidation	kg C_2H_4 eq.	1,61E-02	1,53E-02	1,05E-04	2,66E-04	3,55E-04	-3,49E-06
Acidification	kg SO_2 eq.	2,90E-01	2,66E-01	2,32E-03	1,24E-02	9,65E-03	-2,85E-04
Eutrophication	kg PO_4^{3-} eq.	6,83E-02	6,21E-02	4,37E-04	4,36E-03	1,35E-03	1,13E-04
Abiotic depletion (elements)	kg Sb eq.	4,94E-04	5,00E-04	1,89E-07	-6,05E-06	5,48E-09	1,81E-07
Abiotic depletion (fossil)	MJ	5,57E+02	4,81E+02	1,17E+01	4,03E+01	2,75E+01	-3,65E+00



Type 1: FRAME

Use of resources

CATEGORIES	UNITS	TOTAL	A1	A2	A3	A4	A5
Primary energy res. Ren. – Energy	MJ	1,26E+02	1,12E+02	4,44E-02	1,41E+01	6,09E-02	1,26E-01
Primary energy res. Ren. – Materials	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Primary energy res. Ren. – Total	MJ	1,26E+02	1,12E+02	4,44E-02	1,41E+01	6,09E-02	1,26E-01
Primary energy res. NNRen. – Energy	MJ	5,86E+02	5,02E+02	1,23E+01	4,70E+01	2,90E+01	-4,34E+00
Primary energy res. NNRen. – Materials	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Primary energy res. NNRen. – Total	MJ	5,86E+02	5,02E+02	1,23E+01	4,70E+01	2,90E+01	-4,34E+00
Secondary materials	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Ren. secondary fuels	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
NNRen. secondary fuels	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Water scarcity	m^3	1,62E+01	1,31E+01	4,71E-02	3,05E+00	1,01E-01	-1,29E-01
Net use of fresh water	m^3	1,54E-03	0,00E+00	0,00E+00	1,54E-03	0,00E+00	0,00E+00

Waste production

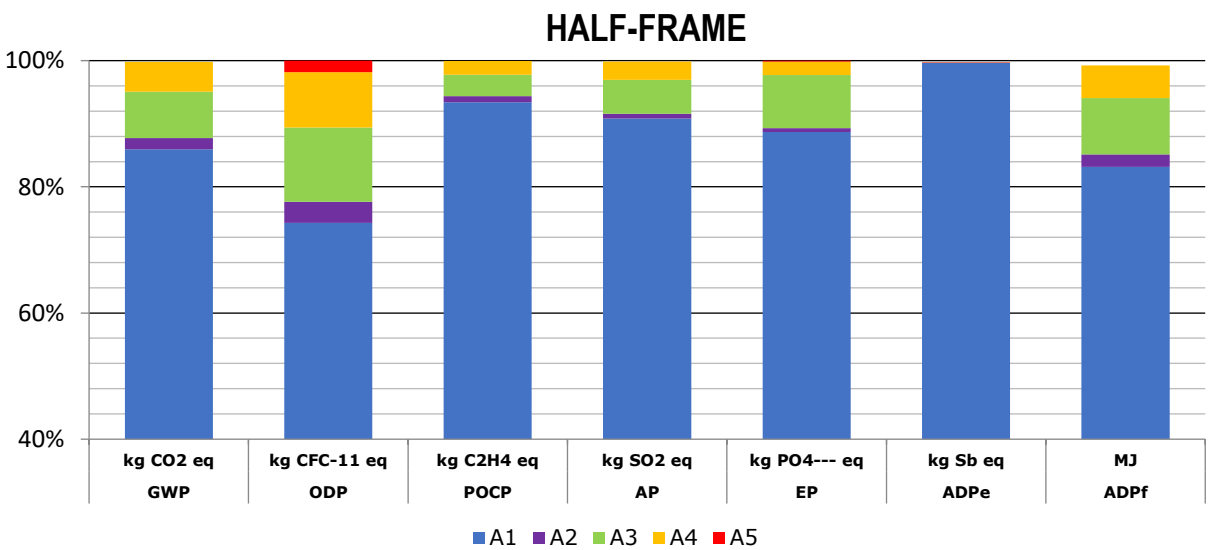
CATEGORIES	UNITS	TOTAL	A1	A2	A3	A4	A5
Hazardous waste disposed	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Non-Hazardous waste disposed	kg	2,14E-01	0,00E+00	0,00E+00	2,14E-01	0,00E+00	0,00E+00
Radioactive waste disposed	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Components for reuse	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Materials for recycling	kg	2,76E+00	0,00E+00	0,00E+00	1,08E+00	0,00E+00	1,68E+00
Materials for energy recovery	kg	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
Exported energy, thermal	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00

ENVIRONMENTAL PERFORMANCE

Type 2: HALF-FRAME

Environmental impacts

CATEGORIES	UNITS	TOTAL	A1	A2	A3	A4	A5
Global warming	kg CO_2 eq.	3,95E+01	3,37E+01	7,92E-01	3,13E+00	1,98E+00	-5,61E-02
of which GWP Bio	kg CO_2 eq.	2,77E+00	2,00E+00	1,03E-03	7,52E-01	2,72E-03	9,84E-03
of which $GWP_{Land\ Use}$	kg CO_2 eq.	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
of which $GWP_{Land\ Transf.}$	kg CO_2 eq.	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Ozone layer depletion	kg CFC-11 eq.	4,01E-06	2,93E-06	1,48E-07	4,87E-07	3,70E-07	7,18E-08
Photochemical oxidation	kg C_2H_4 eq.	1,42E-02	1,31E-02	1,29E-04	5,58E-04	3,19E-04	-1,65E-07
Acidification	kg SO_2 eq.	2,80E-01	2,53E-01	2,21E-03	1,67E-02	8,14E-03	-3,60E-04
Eutrophication	kg PO_4^{3-} eq.	6,00E-02	5,30E-02	3,96E-04	5,27E-03	1,21E-03	8,80E-05
Abiotic depletion (elements)	kg Sb eq.	7,46E-04	7,48E-04	2,77E-09	-2,29E-06	5,74E-09	1,67E-07
Abiotic depletion (fossil)	MJ	5,21E+02	4,34E+02	1,16E+01	4,99E+01	2,89E+01	-3,21E+00



Type 2: HALF-FRAME

Use of resources

CATEGORIES	UNITS	TOTAL	A1	A2	A3	A4	A5
Primary energy res. Ren. – Energy	MJ	1,02E+02	8,57E+01	2,29E-02	1,56E+01	6,16E-02	1,45E-01
Primary energy res. Ren. – Materials	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Primary energy res. Ren. – Total	MJ	1,02E+02	8,57E+01	2,29E-02	1,56E+01	6,16E-02	1,45E-01
Primary energy res. NNRen. – Energy	MJ	5,43E+02	4,49E+02	1,22E+01	5,47E+01	3,05E+01	-3,80E+00
Primary energy res. NNRen. – Materials	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Primary energy res. NNRen. – Total	MJ	5,43E+02	4,49E+02	1,22E+01	5,47E+01	3,05E+01	-3,80E+00
Secondary materials	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Ren. secondary fuels	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
NNRen. secondary fuels	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Water scarcity	m^3	1,40E+01	1,08E+01	4,25E-02	3,17E+00	1,05E-01	-8,39E-02
Net use of fresh water	m^3	1,36E-03	0,00E+00	0,00E+00	1,36E-03	0,00E+00	0,00E+00

Waste production

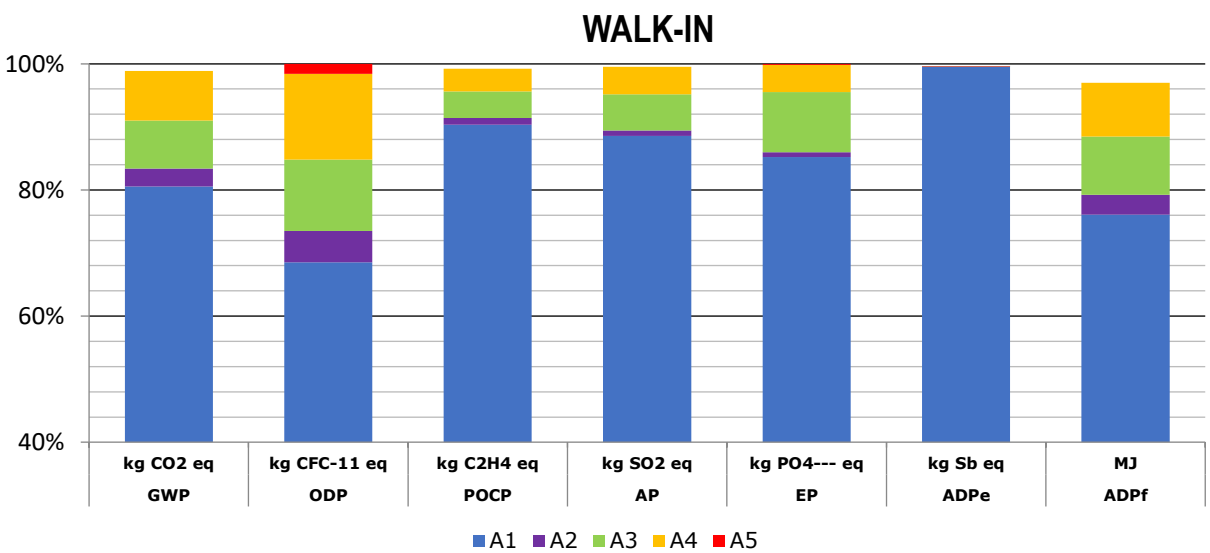
CATEGORIES	UNITS	TOTAL	A1	A2	A3	A4	A5
Hazardous waste disposed	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Non-Hazardous waste disposed	kg	2,17E-01	0,00E+00	0,00E+00	2,17E-01	0,00E+00	0,00E+00
Radioactive waste disposed	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Components for reuse	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Materials for recycling	kg	3,09E+00	0,00E+00	0,00E+00	9,80E-01	0,00E+00	2,11E+00
Materials for energy recovery	kg	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
Exported energy, thermal	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00

ENVIRONMENTAL PERFORMANCE

Type 3: WALK-IN

Environmental impacts

CATEGORIES	UNITS	TOTAL	A1	A2	A3	A4	A5
Global warming	kg CO_2 eq.	3,65E+01	2,98E+01	1,06E+00	3,80E+00	2,96E+00	-4,42E-01
of which GWP Bio	kg CO_2 eq.	2,12E+00	1,45E+00	1,41E-03	6,59E-01	4,00E-03	5,35E-03
of which $GWP_{Land\ Use}$	kg CO_2 eq.	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
of which $GWP_{Land\ Transf.}$	kg CO_2 eq.	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Ozone layer depletion	kg CFC-11 eq.	4,05E-06	2,76E-06	2,01E-07	4,66E-07	5,56E-07	6,40E-08
Photochemical oxidation	kg C_2H_4 eq.	1,19E-02	1,08E-02	1,27E-04	5,56E-04	4,73E-04	-1,05E-04
Acidification	kg SO_2 eq.	2,70E-01	2,39E-01	2,39E-03	1,66E-02	1,32E-02	-1,32E-03
Eutrophication	kg PO_4^{3-} eq.	4,79E-02	4,02E-02	3,82E-04	5,03E-03	2,18E-03	7,58E-05
Abiotic depletion (elements)	kg Sb eq.	5,54E-04	5,56E-04	3,11E-09	-2,10E-06	8,58E-09	1,37E-07
Abiotic depletion (fossil)	MJ	4,76E+02	3,82E+02	1,57E+01	5,05E+01	4,35E+01	-1,62E+01



Type 3: WALK-IN

Use of resources

CATEGORIES	UNITS	TOTAL	A1	A2	A3	A4	A5
Primary energy res. Ren. – Energy	MJ	7,26E+01	5,78E+01	3,10E-02	1,46E+01	9,01E-02	3,48E-02
Primary energy res. Ren. – Materials	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Primary energy res. Ren. – Total	MJ	7,26E+01	5,78E+01	3,10E-02	1,46E+01	9,01E-02	3,48E-02
Primary energy res. NNRen. – Energy	MJ	4,96E+02	3,97E+02	1,66E+01	5,50E+01	4,59E+01	-1,85E+01
Primary energy res. NNRen. – Materials	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Primary energy res. NNRen. – Total	MJ	4,96E+02	3,97E+02	1,66E+01	5,50E+01	4,59E+01	-1,85E+01
Secondary materials	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Ren. secondary fuels	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
NNRen. secondary fuels	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Water scarcity	m^3	1,18E+01	9,63E+00	5,68E-02	2,69E+00	1,58E-01	-7,01E-01
Net use of fresh water	m^3	1,15E-03	0,00E+00	0,00E+00	1,15E-03	0,00E+00	0,00E+00

Waste production

CATEGORIES	UNITS	TOTAL	A1	A2	A3	A4	A5
Hazardous waste disposed	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Non-Hazardous waste disposed	kg	2,34E-01	0,00E+00	0,00E+00	2,34E-01	0,00E+00	0,00E+00
Radioactive waste disposed	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Components for reuse	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Materials for recycling	kg	2,15E+00	0,00E+00	0,00E+00	9,16E-01	0,00E+00	1,24E+00
Materials for energy recovery	kg	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
Exported energy, thermal	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00

PROGRAMME INFORMATION

ENVIRONMENTAL PRODUCT DECLARATION (EPD)

This declaration is an Environmental Product Declaration (EPD) in accordance with ISO 14025:2006, EN 15804:2014, the requirements given by the Product Category Rules (PCR 2017:03) for Shower Enclosures and the General Programme Instructions for The International EPD® System. The results shown in this EPD are based on the LCA report for sector EPD of 10 Italian companies associated with Assobagno by FederlegnoArredo, according to ISO 14040:2006 and ISO 14044:2006.

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.

EPD Programme	The International EPD® System EPD International AB, Box 21060 SE-100 31 Stockholm, Sweden www.environdec.com; info@environdec.com
EPD registration number	S-P-01811
EPD owner	FederlegnoArredo – Assobagno Arblu srl, calibe srl, duka SpA, inda SpA, Lacus srl, megius SpA, Novellini SpA, RARE srl, samo SpA, vismaravetro srl
Declared unit	1 m^2 of shower enclosure
System boundaries	Cradle to gate with options
Published	2022-03-28
Valid until	2024-12-19
Reference year for data	2020
Geographical scope	Global
Product group classification	CPC Code 37117
Product Category Rules	PCR 2017:03, Version 1.1 – Shower Enclosures
PCR review conducted by	Technical Committee of The International EPD® System
Accredited Certification Body	TÜV Italia S.r.l. – DAP N. 009H by Accredia
EPD prepared by	Michele Paleari – michelepaleariarch@gmail.com
EPD follow-up	Procedure for follow-up of data during EPD validity involves third party verifier with a contracted surveillance verification

REFERENCES

- General Programme Instructions for The International EPD® System, Version 3.0
- PCR 2017:03, Version 1.1 – Shower Enclosures
- ISO 14040:2006 – Environmental management — Life cycle assessment — Principles and framework
- ISO 14044:2006 – Environmental management — Life cycle assessment — Requirements and guidelines
- ISO 14025:2010 – Environmental labels and declarations — Type III environmental declarations — Principles and procedures
- EN 15804:2014 – Sustainability of construction works – Environmental Product Declarations – Core rules for the product category of construction products
- Ecoinvent Database. http://www.ecoinvent.org/database/

DIFFERENCES VS PREVIOUS VERSION

2020-09-07, Version 1

2022-03-28, Version 2

- *New verification:* products substitution, updated input data to the reference year 2020 and updated LCA results.
- *Editorial change:* corrected company name and product codes.

CONTACTS

EPD PROGRAMME	EPD® THE INTERNATIONAL EPD® SYSTEM	**The International EPD® System Sweden www.environdec.com**
ACCREDITED CERTIFICATION BODY	TÜV SÜD Italia	**TÜV Italia S.r.l. Italy www.tuv.it**
EPD OWNER	FLA FEDERLEGNOARREDO	**FederlegnoArredo – Assobagno 10 associated companies Italy www.federlegno.com**
EPD AUTHOR		**Michele Paleari Italy**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