



orasgroup



 **EPD**[®]
THE INTERNATIONAL EPD[®] SYSTEM



Environmental Product Declaration

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

Spout washbasin faucet

EPD of multiple products, based on worst-case results

Products included are listed in Appendix 1.

from

Oras Group

Programme:

Programme operator:

EPD registration number:

Publication date:

Valid until:

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

EPD International AB

EPD-IES-0017639

2025-06-12

2030-06-11

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)	<p>CEN standard EN 15804 serves as the Core Product Category Rules (PCR)</p> <p>Product Category Rules (PCR): Construction products, 2019:14, version 1.3.4, UN CPC 42911 - Sinks, washbasins, baths and other sanitary ware and parts thereof, of iron, steel, copper or aluminium.</p> <p>PCR review was conducted by: The Technical Committee of the International EPD® System. Chair of the PCR review: Claudia A. Peña. The review panel may be contacted via info@environdec.com.</p>
Life Cycle Assessment (LCA)	<p>LCA accountability: Ida Leiviskä, Analyst. Organization: Ecobio Oy.</p>
Third-party verification	<p>Independent third-party verification of the declaration and data, according to ISO 14025:2006, via:</p> <p><input checked="" type="checkbox"/> EPD verification by individual verifier</p> <p>Third-party verifier: Kripanshi Gupta</p> <p>Approved by: The International EPD® System</p>
<p>Procedure for follow-up of data during EPD validity involves third party verifier: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>	

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. For further information about comparability, see EN 15804 and ISO 14025.

Company information

Owner of the EPD	Oras Group
Contact	Phone: +358 2 83 161 Email: info@orasgroup.com www.orasgroup.com
Description of the organisation	<p>Oras Group is a significant European provider of sanitary fittings: the market leader in the Nordics and a leading company in Continental Europe. The company's mission is to create the smartest and most sustainable water experiences for everyone, and its vision is to become the Perfect Flow Company. The Group has two strong brands, Oras and Hansa. Oras Group is owned by Oras Invest, a family company, and an industrial owner.</p> <p>The domicile of Oras Ltd, the parent company of the Group, is located in Rauma, Finland, and the Group has three manufacturing sites: Kralovice (Czech Republic), Olesno (Poland) and Rauma (Finland). Additionally, some products within the product group are assembled in China. The Group operates with its own staff in 15 markets. Oras Group's net sales were 200,2 million euros in 2024 and at the end of the period the company employed 1109 people.</p>
Product-related or management system-related certifications	Designation according to standards EN 1112
Management system related certifications	ISO 9001:2015 ISO14001:2015 ISO 45001: 2018 ISO 50001:2018
Name and location of production sites	Oras Group Rauma production site Isometsäntie 2, FI 26101 Rauma, Finland

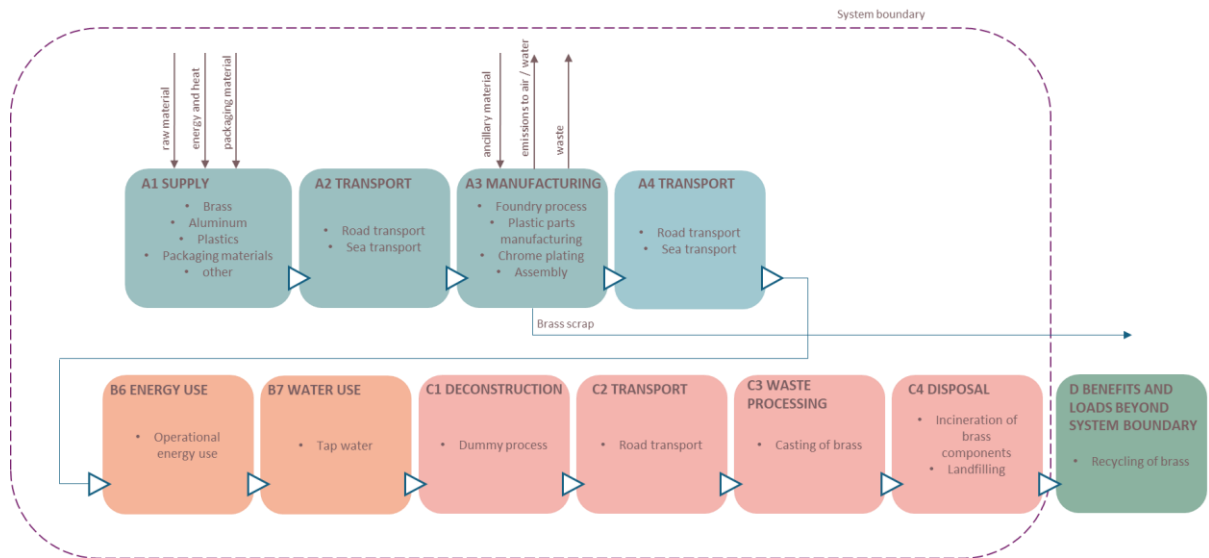
Product information

Product name	Spout washbasin faucets
Product group identification	Spout washbasin faucet with one inlet for cold or premixed water, horizontal or vertical mounted, single hole, according to EN 200.
Product group description	Oras Group products are manufactured in our own European factories by focusing into sustainable energy sources, highly efficient processes and minimized material usage and waste. The threshold value for the share of brass in product declaration is 0-98 %.
UN CPC code	42911 - Sinks, washbasins, baths and other sanitary ware and parts thereof, of iron, steel, copper or aluminium
Geographical scope	Europe

LCA information

Declared unit	1 kg of Spout washbasin faucet
EPD of multiple products	In this EPD, the information and LCA results are based on three (3) similar products of the product group. All products of the product group are presented in Appendix I of this EPD and in the LCA report related to this EPD. Since the declared environmental impact indicator results, aggregated over all included modules A-C, differ by more than 10% between any of the included products, for each indicator, the highest results are declared. I.e., the results of a "worst-case product" are presented.
Estimated service life	The estimated service life for spout washbasin faucets is 10 years The technical service life for spout washbasin faucets is 15 years
Time representativeness	The data was collected covering the first half (1.1.-30.6.) of 2024. Data of electricity sources of electricity consumed in the manufacturing is from 2024. The material declarations used as a basis for modelling the raw material supply are compiled in 2024.
Databases and LCA software	Ecoinvent 3.10 and SimaPro (Version 10.1).
Description of system boundaries	Cradle to gate with options, modules C1-C4, module D and with optional modules (A1-A3 + C + D and additional modules). The additional modules are A4, B6 and B7.

System diagram



LCA practitioner	Ecobio Oy, www.ecobio.fi
Allocation	<p>The allocation of energy and material flows is determined based on the production volumes of the main products, as well as any co-products and other products manufactured within the same facilities.</p> <p>No co-product allocation was applied.</p>
Electricity used in module A3	The electricity is 100 % based on nuclear power. GWP-GHG impact of the used electricity mix is 7,5 g CO ₂ -eq/kWh.*
Information about scenarios and additional technical information	The scenario for operational water use is described in chapter "Additional Information".
Cut-off rule	<p>1% cut-off rule was applied for input flows in the inventory.</p> <p>Environmental impacts of infrastructure, facilities (capital goods) required for and during production, transportation of employees required for and during production are excluded along the whole life cycle.</p>

* The information provided regarding electricity production is based on data from a specific collection period described on page 4. As such, it may not reflect the current electricity mix or greenhouse gas impact.

Modules declared

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

	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	MND	MND	MND	MND	MND	MND	x	x	x	x	x	x	x
Geography	EU27 / CN	EU27 / CN	EU27 / CN	EU27	-	-	-	-	-	-	EU27	EU27	EU27	EU27	EU27	EU27	EU27
Specific data used	2,06 %					-	-	-	-	-	-	-	-	-	-	-	-
Variation – products	<10 %					-	-	-	-	-	-	-	-	-	-	-	-
Variation – sites	Only one production site					-	-	-	-	-	-	-	-	-	-	-	-

Modules explained

LCA Modules	
A1 Raw material supply This module contains the supply of raw materials including brass, stainless steel, plastics and other materials in smaller quantities.	C1 De-construction This module is assumed to not cause environmental impacts as the de-construction of overhead shower can be done with manual labour and does not require external energy sources.
A2 Transportation This module contains the transportation of raw materials and prefabricated components from suppliers to Oras Group's production facilities. Transportation takes place by road and sea.	C2 Transport This module contains the transportation of product for waste processing to nearest waste processing facility. Transportation is done by road, and the distance is assumed to be 50 km.
A3 Manufacturing This module contains the relevant production processes for spout washbasin faucets. The most relevant is aluminium components which are purchased from supplier. Treatment of waste and wastewater are also included. The used electricity mix for manufacturing stage is stated on chapter "LCA Information".	C3 Waste processing This module contains the waste processing related to material recycling of brass, stainless steel and ABS. It is assumed that 90 % of the brass is headed for material recycling process, which includes casting of brass into brass ingots. It is also assumed that 90 % of steel and 73 % of ABS is incinerated for energy recovery.
A4 Transport This module contains the transportation of the final product to warehouses and from the warehouse to the consumer.	C4 Disposal This module contains final disposal of materials that are not headed for material or energy recovery. 40 % of brass is assumed to be headed for incineration without energy recovery. Other components in smaller quantities are assumed to be headed to landfill.
B6 Operational energy use This module contains the energy generation related to the use of spout washbasin faucets. The scenario for operational energy use is described more precisely on chapter "Additional Information".	D Benefits and loads beyond system boundary This module contains the benefits related to material recycling of brass and steel. Brass is recycled through casting process, and it is assumed to substitute virgin brass production from the market
B7 Operational water use This module contains the production and wastewater treatment of tap water related to the use of spout washbasin faucets. The scenario for operational water use is described more precisely on chapter "Additional Information".	

Content information

The content declaration lists the lowest amounts of recycled and biogenic content in the products and packaging, the most hazardous substances in any of the products, and the average content for all other components.

Product components	Weight, kg	Post-consumer material, weight-%	Biogenic material, weight-% of product	Biogenic material, kg C/declared unit
Aluminum Oxide	0,0032	0 %	0 %	0
Brass	0,9643	0 %	0 %	0
Bronze	0,0002	0 %	0 %	0
Chromium	0,0007	0 %	0 %	0
Copper	0,0003	0 %	0 %	0
Ethylene Propylene Diene Monomer	0,0012	0 %	0 %	0
Nickel	0,0007	0 %	0 %	0
Nitrile Butadiene Rubber	0,0110	0 %	0 %	0
Polyamide	0,0099	0 %	0 %	0
Polyoxymethylene	0,0061	0 %	0 %	0
Silicone	0,0016	0 %	0 %	0
Stainless steel	0,0009	0 %	0 %	0
TOTAL	1,0000	0 %	0 %	0

Packaging materials	Weight, kg	Weight-% (versus the product)	Biogenic material, kg C/declared unit
Corrugated board	0,1633	16 %	0,0680
Paper	0,0836	8 %	0,0329
Polyethylene	0,0194	2 %	0,0
Sharp tear	0,0004	0 %	0,0
TOTAL	0,2666	27 %	0,101

The products do not contain substances which exceed the limits for registration with the European Chemicals Agency regarding the "Candidate List of Substances of Very High Concern for authorization".

Environmental Information

Note: Environmental information for module and B6 with a reference water flow of 1 l/min. More details about the scenario are presented in Additional Environmental Information.

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.

Balancing for biogenic CO₂ associated with packaging is done in modules A1-A3 instead of A5. The results of modules A1-A3 shall not be used without considering the results of module C1-C4.

Potential environmental impact – mandatory indicators according to EN 15804 and EF 3.1

Results per 1 kg of spout washbasin faucet													
Indicator	Unit	A1	A2	A3	Tot. A1-A3	A4	B6	B7	C1	C2	C3	C4	D
GWP-fossil	kg CO ₂ eq.	6,11E+00	2,89E+00	4,46E-01	9,45E+00	4,21E-01	2,22E+02	1,45E+01	0,00E+00	1,20E-02	9,23E-03	9,00E-03	-3,31E+00
GWP-biogenic	kg CO ₂ eq.	-2,88E-01	4,01E-04	3,10E-01	2,19E-02	7,37E-05	5,56E-01	1,72E+00	0,00E+00	2,20E-06	4,20E-03	7,73E-06	-9,66E-03
GWP - luluc	kg CO ₂ eq.	2,02E-02	1,35E-03	7,21E-04	2,23E-02	1,41E-04	5,04E-01	2,41E-02	0,00E+00	3,79E-06	1,01E-05	3,91E-06	-6,25E-03
GWP - total	kg CO ₂ eq.	5,84E+00	2,89E+00	7,57E-01	9,49E+00	4,21E-01	2,23E+02	1,63E+01	0,00E+00	1,20E-02	1,34E-02	9,02E-03	-3,33E+00
ODP	kg CFC 11 eq.	6,83E-08	4,21E-08	1,00E-08	1,20E-07	8,23E-09	6,09E-06	1,97E-07	0,00E+00	2,40E-10	7,86E-11	1,90E-10	-3,12E-08
AP	mol H ⁺ eq.	3,94E-01	8,04E-02	1,27E-03	4,76E-01	1,95E-03	7,26E-01	8,46E-02	0,00E+00	3,59E-05	5,31E-05	5,19E-05	-2,33E-01
EP-freshwater	kg P eq.	1,78E-03	1,12E-05	1,64E-05	1,81E-03	3,14E-06	9,48E-03	2,89E-02	0,00E+00	9,04E-08	4,33E-07	1,15E-07	-1,04E-03
EP-marine	kg N eq.	2,05E-02	2,03E-02	3,37E-04	4,12E-02	5,92E-04	1,31E-01	4,69E-01	0,00E+00	1,19E-05	1,46E-05	1,99E-05	-1,17E-02
EP-terrestrial	mol N eq.	2,90E-01	2,26E-01	3,05E-03	5,19E-01	6,54E-03	1,46E+00	2,16E-01	0,00E+00	1,31E-04	1,33E-04	2,19E-04	-1,68E-01
POCP	kg NMVOC eq.	8,18E-02	6,13E-02	1,48E-03	1,45E-01	2,48E-03	5,86E-01	5,25E-02	0,00E+00	5,67E-05	3,80E-05	7,45E-05	-4,73E-02
ADP-minerals&metals*	kg Sb eq.	5,43E-03	2,99E-06	1,67E-06	5,44E-03	1,29E-06	3,38E-04	8,12E-05	0,00E+00	3,81E-08	2,29E-07	2,50E-08	-3,23E-03
ADP-fossil*	MJ	7,78E+01	3,58E+01	6,80E+00	1,20E+02	5,87E+00	3,99E+03	2,32E+02	0,00E+00	1,68E-01	9,08E-02	6,78E-05	-4,19E+01
WDP*	m ³	7,29E+00	1,08E-01	2,10E-02	7,42E+00	3,19E-02	7,38E+01	-1,54E+01	0,00E+00	9,45E-04	2,28E-03	2,96E-04	-4,01E+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 results of this environmental impact indicator shall be used with care as the uncertainties of these results are high or as there is limited experience with the indicator.*

Potential environmental impact – additional mandatory and voluntary indicators based on EF 3.1

Results per 1 kg of spout washbasin faucet													
Indicator	Unit	A1	A2	A3	Tot. A1-A3	A4	B6	B7	C1	C2	C3	C4	D
GWP-GHG1	kg CO2 eq.	6,18E+00	2,90E+00	4,52E-01	9,5E+00	4,22E-01	2,23E+02	1,63E+01	0,00E+00	1,21E-02	1,35E-02	9,11E-03	-3,34E+00

Use of resources

Results per 1 kg of spout washbasin faucet													
Indicator	Unit	A1	A2	A3	Tot. A1-A3	A4	B6	B7	C1	C2	C3	C4	D
PERE	MJ	2,29E+01	2,63E-01	3,22E-01	2,35E+01	9,64E-02	8,11E+02	3,98E+01	0,00E+00	3,23E-03	1,79E-02	2,81E-03	-1,09E+01
PERM	MJ	2,12E+00	0,00E+00	-2,12E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PERT	MJ	2,50E+01	2,63E-01	-1,80E+00	2,35E+01	9,64E-02	8,11E+02	3,98E+01	0,00E+00	3,23E-03	1,79E-02	2,81E-03	-1,09E+01
PENRE	MJ	7,35E+01	3,58E+01	6,80E+00	1,16E+02	5,87E+00	3,99E+03	2,32E+02	0,00E+00	1,68E-01	9,08E-02	8,42E-05	-4,19E+01
PENRM	MJ	4,47E+00	0,00E+00	-4,47E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PENRT	MJ	7,79E+01	3,58E+01	2,33E+00	1,16E+02	5,87E+00	3,99E+03	2,32E+02	0,00E+00	1,68E-01	9,08E-02	8,42E-05	-4,19E+01
SM	kg	4,67E-01	1,56E-02	1,74E-03	4,84E-01	2,68E-03	5,80E-01	5,80E-01	0,00E+00	7,34E-05	1,80E-04	1,70E-08	-1,49E-01
RSF	MJ	2,16E-02	4,79E-05	9,24E-05	2,18E-02	3,25E-05	6,47E-03	6,74E-04	0,00E+00	7,45E-07	1,42E-05	3,53E-10	-8,34E-04
NRSF	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
FW	m3	1,75E-01	2,64E-03	3,97E-03	1,81E-01	7,85E-04	1,88E+00	-3,45E-01	0,00E+00	2,34E-05	5,81E-05	1,20E-05	-9,83E-02
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												

* Calculation option A from PCR 2019:14 Construction products v1.3.4 has been followed in the calculation of the primary energy use indicators. The values in the above table are stemming from the background processes and not from the inventory of the product itself.

¹ The indicator includes all greenhouse gases included in GWP-total but excludes biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. This indicator is thus almost equal to the GWP indicator originally defined in EN 15804:2012+A1:2013.

Waste production and output flows

Note: Environmental information for module B6 has been calculated with reference electricity consumption of 1 kWh in a year and a reference water flow of 1 l/min. More details about the scenarios are presented in Additional Environmental Information.

Waste production

Results per 1 kg of spout washbasin faucet													
Indicator	Unit	A1	A2	A3	Tot. A1-A3	A4	B6	B7	C1	C2	C3	C4	D
Hazardous waste disposed	kg	1,94E+00	4,46E-02	5,48E-02	2,04E+00	8,38E-03	7,23E+00	1,34E+00	0,00E+00	2,19E-04	1,00E-03	3,47E-04	-1,11E+00
Non-hazardous waste disposed	kg	1,20E+02	6,30E-01	4,15E+00	1,24E+02	1,74E-01	4,25E+02	2,59E+04	0,00E+00	5,15E-03	4,83E-02	7,42E-01	-7,04E+01
Radioactive waste disposed	kg	1,87E-04	4,01E-06	1,24E-05	2,03E-04	1,81E-06	1,46E-02	1,17E-03	0,00E+00	6,41E-08	3,50E-07	1,05E-11	-1,04E-04

Output flows

Results per 1 kg of spout washbasin faucet													
Indicator	Unit	A1	A2	A3	Tot. A1-A3	A4	B6	B7	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	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Material for recycling	kg	3,85E-02	3,55E-03	2,33E-04	4,23E-02	7,31E-05	1,34E-01	3,27E-02	0,00E+00	1,29E-06	5,77E-01	2,95E-10	-7,13E-03
Materials for energy recovery	kg	3,58E-05	7,48E-07	1,22E-06	3,77E-05	3,59E-07	5,37E-05	1,19E-05	0,00E+00	3,75E-09	1,67E-08	1,33E-12	-2,04E-05
Exported energy, electricity	MJ	3,99E-02	1,69E-03	1,80E-03	4,33E-02	9,60E-04	9,34E+00	7,47E-01	0,00E+00	3,65E-05	2,17E-04	4,14E-09	-1,94E-02
Exported energy, thermal	MJ	3,20E-01	1,52E-03	2,62E-01	5,84E-01	1,38E-03	2,83E+01	6,70E-02	0,00E+00	2,06E-04	2,12E-05	2,65E-09	-3,45E-02

Information on biogenic carbon content

Results per declared unit		
BIOTENIC CARBON CONTENT	Unit	QUANTITY
Biogenic carbon content in product	kg C	0,0000
Biogenic carbon content in packaging	kg C	0,101

Note: 1 kg biogenic carbon is equivalent to 44/12 kg CO₂.

Additional information

The scenario for modules B6 and B7 is based on Unified Water Label (UWL), which is a product label developed by European bathroom industry to demonstrate water and energy efficiency of bathroom products. The technical criteria of UWL correlates with existing European and National standards while establishing harmonized calculation criteria for bathroom products. The following parameters were applied when developing the scenario related to operational water use.

Parameter	Amount	Unit
Reference flow	1	l/min
Use cycles per day	7	use cycles/day
Length of use cycle	1	min
Use cycles per year	365	days
Cold water temperature	15	°C
Hot water temperature	38	°C
Heat coefficient of water	4,18	kJ/kgK
Density of water	0,981	kg/l
Length of the use stage	10	years

Module B7 accounts for the water consumption during the use phase of the product. In this EPD, water use has been calculated based on a reference flow rate of 1 litre per minute (1 l/min). This reference scenario has been selected to enable product-specific scaling of the results. A typical flow for taps is approximately 6 l/min. Domestic water heating is calculated based on the water consumption.

Differences versus previous versions

This is the first version of the EPD so there are no differences versus previous versions of the EPD.

References

Disaggregated final energy consumption in households – Energy use – Water heating. Eurostat. 2022.

Ecobio LCA report – Spout washbasin faucet and shower panel. Oras Group. 2025.

General Programme Instructions of the International EPD® System. Version 4.0.

PCR 2019:14. Construction products. Version 1.3.4

Taps & showers technical criteria. Unified Water Label. 2020.

SimaPro Life Cycling Modelling software. Version 10.1.0.5

Ecoinvent 3.10. database

Industry data 2.0. database

Included products

00868101	HASANOVA Washbasin faucet
00918101	HASANOVA Washbasin faucet
00938101	HASANOVA Washbasin faucet
00968101	HASANOVA Washbasin faucet
101022	Cold water faucet
50868101	HASANOVA Style Washbasin faucet
50918101	HASANOVA Style Washbasin faucet
50938101	HASANOVA Style Washbasin faucet
50968101	HASANOVA Style Washbasin faucet
5086810133	HASANOVA Style Washbasin faucet
5091810133	HASANOVA Style Washbasin faucet
5093810133	HASANOVA Style Washbasin faucet
5093810184	HASANOVA Style Washbasin faucet
5093810196	HASANOVA Style Washbasin faucet
5096810133	HASANOVA Style Washbasin faucet



www.environdec.com