

iBVD

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4

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2025-12-02



Uppgiftslämnaren reserverar sig för eventuella fel i produktinformationen eller felaktigt registrerade uppgifter och förbehåller sig rätten att korrigera och/eller komplettera produktinformation utan föregående avisering

1

GRUNDDATA

Varubeskrivning

Tvättställsblandare för bänkmontage.

Övriga upplysningar

Innehåller endast 4MS godkända mässingslegeringar.
Uppfyller EU-taxonomin krav på maxflöden.

Klassificeringar

ETIM >	-EC011328 - Tvättställsblandare
BK04 >	-20107 - Sanitetsarmatur
BSAB >	-PVB.23 - Tvättställsblandare och bidéblandare
UNSPSC >	-30181700

Leverantörsuppgifter**Företagsnamn**

Oras Sverige AB

Organisationsnummer

5569845224

Adress

Englundavägen 7D

Hemsida

www.oras.com

Miljökontaktperson**Namn**

Jörgen Sjölander

Telefon

070-5883521

E-post

jorgen.sjoland@oras.com

2

HÅLLBARHETSARBETE

Företagets certifiering

- ISO 9001
- ISO 14001
- ISO 50001, OHSAS 18001

Polycys och riktlinjer

www.orasgroup.com

3

INNEHÅLLSDEKLARATION

Kemisk produkt	Nej
Innehåller produkten elektronik	Nej
Omfattas varan av RoHs-direktivet	Nej
Varans vikt	1,154 - 1,189 kg

Vara / Delkomponenter

Koncentrationen har beräknats på hela varan

Ingående material /komponenter	Vikt-% i komponent	CAS-nr (alt legering)	EG-nr (alt legering)	Vikt % i produkt	Kommentar
Poly(oxymethylene)		9002-81-7		2,43%	Additiv är avstämda och når nivå rekommenderas.
Polyamid 6,6		32131-17-2	Saknas	0,67%	
Aluminiumoxid (Al ₂ O ₃)		90669-62-8		2,01%	
Plast ABS		9006-56-9		5,03%	
Rostfritt stål EN 1.4301, Bedömning på legeringsnivå (SS2333, SS 2332, A2, AISI 304, X5CrNi18-9, BS 304S31, 08KH18N10, SFS 725)		12597-68-1---1-4301	Saknas	9,89%	
Mässing CW614N* (CuZn39Pb3), Pb ≤ 3,5%, Ni* ≤ 0,2% (*=4MS C)		Övrigt, metaller		27,83%	
Mässing CC770S* (CuZn36Pb-C), Pb ≤ 1,6%, Ni ≤ 0,2%, As ≤ 0,14% (*=4MS B,C)		Övrigt, metaller		48,11%	
EPDM synonym Ethylene-ethylidenenorbornene-propylene terpolymer		25038-36-2	Saknas	1,34%	
Polyetylen		9002-88-4		2,68%	Additiv är avstämda och når nivå rekommenderas.

Del av materialinnehållet som är deklarerat

99,99%

Särskilt farliga ämnen

Följande ämnen finns med på kandidatförteckningen i en koncentration och som överstiger 0,1 vikts-%:

Namn	CAS-nr	EG-nr	Vikt % i produkt
Bly	7439-92-1	231-100-4	Inget angivet

Utgåva av kandidatförteckningen som har använts

2025-06-25

Nanomaterial

Innehåller produkten tillsatt nanomaterial, som är medvetet tillsatta för att uppnå en viss funktion?: Nej

Tillsatt högflourerade ämnen (PFAS)

Innehåller produkten tillsatt högflourerade ämnen (PFAS), som är aktivt tillsatta för att uppnå en specifik funktion?: Nej

Begränsningslistan

Innehåller varan/produkten, eller någon av dess delkomponenter, ämnen som gör att produkten inte uppfyller villkoren i Begränsningslistan (Reach Bilaga XVII)?: Nej

POPs-förordningen

Innehåller varan (eller någon av dess delkomponenter) ämnen som finns i POPs-förordningen?: Nej

Övrigt

Ämnen är redovisade ned till 0,1% viktprocent enligt iBVDs redovisningskrav. Eventuell avvikelse från redovisningskraven redovisas nedan

Kompletterande information

Samtliga additiv Plast/polymerer är avstämda och når nivå rekommenderas.

Återvunnet material

Innehåller varan återvunnet material: Ja

Specifikation av vilka material och andel som utgörs av den totala varans vikt

1. Återvunnet material
2. Andel (%) av totala varans vikt
3. Andel (%) av det återvunna materialet vilket **inte** har passerat konsumentledet
4. Andel (%) av det återvunna materialet vilket har passerat konsumentledet

1	2	3	4
mässing	70 %	40 %	80 %
ABS	3 %	20 %	

Träråvara

Träråvara ingår i varan: Nej

Finns en miljövarudeklaration framtagen enligt EN15804 eller ISO14025 för varan

Ja

Finns annan miljövarudeklaration

Ej angivet

Om miljövarudeklaration eller annan livscykelanalys saknas, beskriv hur miljöpåverkan av varan beaktas ur ett livscykelperspektiv

Den största delen av en blandares miljöpåverkan uppstår under dess användande och påverkas av uppvärmning och användande av vatten. Tillverkningsprocessen av blandare (material och energi) står för ca 0,2% av produkternas totala miljöpåverkan. En blandare är till stor del tillverkad av återvunnen mässing därutöver återanvänds större delen av det avfall som uppstår vid produktion av varan.

Beskrivning av emballagehantering för distribution av varan

Levereras i återvinningsbar wellpapp. Företaget är anslutet till FTI (förpacknings & Tidningsinsamlingen) och uppfyller därmed producentansvaret för emballage.

7	BYGGSKEDET	
	Ställer varan särskilda krav vid lagring?	Nej
	Ställer varan särskilda krav på omgivande byggvaror?	Nej
8	BRUKSSKEDET	
	Finns skötselanvisningar/skötselråd?	Ja
	Finns en energimärkning enligt energimärkningsdirektivet (2017/1369/EU) för varan?	Ej relevant
9	RIVNING	
	Kräver varan särskilda åtgärder för skydd av hälsa och miljö vid rivning/demontering?	Nej
10	AVFALLSHANTERING	
	Omfattas den levererade varan av förordningen (2014:1075) om producentansvar för elektriska och elektroniska produkter när den blir avfall?	Nej
	Är återanvändning möjlig för hela eller delar av varan?	Ja
	Oras tillhandahåller reservdelar 10år efter att varan utgått ur produktsortiment så återanvändning möjliggörs.	
	Är materialåtervinning möjlig för hela eller delar av varan?	Ja
	Oras blandare består till största delen av återvunnen mässing. Uttjanta produkter lämnas till metallåtervinning. Med några få undantag är all plast som används i Oras blandare återvinningsbar. Med några få undantag är allt förpackningsmaterial är fiberbaserat och återvinningsbart.	
	Är energiåtervinning möjlig för hela eller delar av varan?	Ja
	Plastdetaljer och förpackningsmaterial kan förbrännas för energiåtervinning.	
	Har leverantören restriktioner och rekommendationer för återanvändning, material- eller energiåtervinning eller deponering?	Ja
	Information om återvinning följer med produkternas anvisningar samt finns på vår websida.	
	När den levererade varan blir avfall, klassas den då som farligt avfall?	Nej

Avfallskod (EWC) för den levererade varan

170401

RSK-nummer	Eget Artikel-nr	GTIN
827 56 15	3910FH	6414150089084
827 56 16	3911FH	6414150088650
827 56 64	1510F-105-33	6414150103131
827 59 35	1510FK-105	6414150105913
827 76 60	3904F	6414150077845
827 76 64	3910F	6414150077784
827 76 65	3910FK	6414150082658
827 76 66	3911F	6414150077838
827 77 40	1510F	6414150085680
827 77 41	1510FK	6414150085697
827 79 50	1510F-105	6414150090066

Produktdatablad

PrestandadeklARATION

Säkerhetsblad

RoHS-intyg

MiljövarudeklARATION

Oras Group EPD_Washbasin faucet_2023.pdf

Skötselanvisning

Övriga bifogade dokument



Environmental Product Declaration

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

Product group: **Washbasin faucet** according to reference
product 54472207

from

Oras Group

Programme:

Programme operator:

EPD registration number:

Publication date:

Valid until:

The International EPD® System, www.environdec.com

EPD International AB

S-P-06391

2022-12-23

2027-12-23

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): Construction products, 2019:14, version 1.2.5, UN CPC 42911 - Sinks, washbasins, baths and other sanitary ware and parts thereof, of iron, steel, copper or aluminium. 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.
Life Cycle Assessment (LCA)	LCA accountability: Aleksi Laurila, Environmental consultant. Organization: Ecobio Oy.
Third-party verification	Independent third-party verification of the declaration and data, according to ISO 14025:2006, via: ☒ EPD verification by individual verifier Third-party verifier: Hannu Karppi, Ramboll Finland Oy  Approved by: The International EPD® System
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 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	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 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. 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). The Group operates with its own staff in 17 markets. Oras Group's net sales were 233.5 million euros in 2021 and at the end of the period the company employed 1255 people.
Product-related or management system-related certifications	Designation according to standard EN 817.
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 Oras Group Olesno production site Ul. Leśna 2, PL 46-300 Olesno, Poland Oras Group Kralovice production site Zatecka 888, CZ 33141 Kralovice, Czech Republic

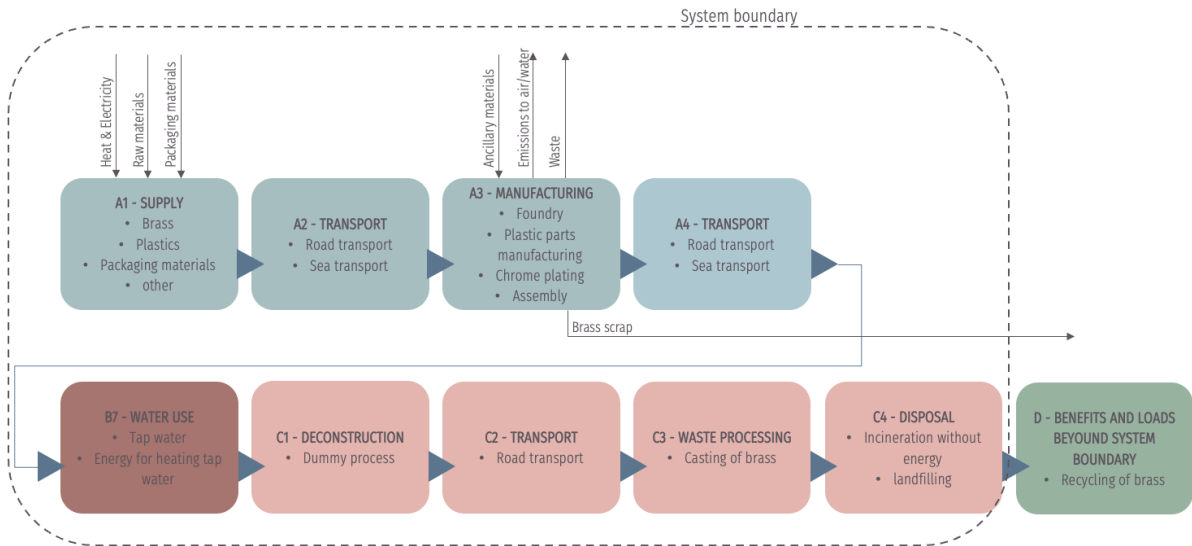
Product group information

Product group name	Washbasin faucet
Product group EPD development criterion	This EPD covers washbasin faucets product group. Worst-case scenario approach was applied while developing the EPD. Share of brass (%) from the net weight of the product was selected as the indicator for determining worst-case product within the product group. LCIA profile presented in this EPD is based on a product that has the highest share of brass (%) from mass perspective within the product group.
Product group identification	Mechanical mixing valve for washbasin, horizontal mounted, single hole, according to EN 817.
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. Faucets include built-in features for water flow and temperature limitation to ensure sustainable product life cycle with efficient use of energy.
UN CPC code	42911 - Sinks, washbasins, baths and other sanitary ware and parts thereof, of iron, steel, copper or aluminium.
Geographical scope	Europe
Included products	Reference product is 54472207. The EPD covers products listed at the end of the EPD document.

LCA information

Functional unit / declared unit	1 kg of Washbasin faucet
Reference service life	The reference service life for washbasin faucet is 16 years. The technical service life for washbasin faucet is 25 years.
Time representativeness	The data was collected covering production year 2020, which is considered to represent average production year for washbasin faucets. The material declarations used as a basis for modelling the raw material supply are compiled in 2022.
Databases and LCA software	Ecoinvent 3.8 and SimaPro (Version 9.4.0.2).
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 and B7.

System diagram



LCA practitioner	Ecobio Oy, www.ecobio.fi
Allocation	Co-product allocation was applied for the brass scrap that is produced from the foundry process. Economic co-product allocation was applied based on the hierarchy presented for co-product allocation on the EN 15804:2012+A2:2019.
Electricity used in module A3	The electricity used in module A3 accounts for more than 30 % of the total energy consumption in modules A1-A3. Therefore, the used energy sources for electricity production and climate change impact of the electricity mix are stated. At Rauma production site the electricity is 100 % based on hydropower. GWP-GHG impact of the used electricity mix is 5,4 g CO₂-eq/kWh. At Olesno manufacturing facility the electricity is based on biomass and biogas 5,90 %, hydropower 1,72 %, wind 11,85 %, solar (PV) 0,45 %, coal 47,61 %, lignite 23,59 % and natural gas 8,88 %. GWP-GHG impact of the used electricity mix is 694,0 g CO₂-eq/kWh. At Kralovice manufacturing facility the electricity is based on coal 40,83 %, nuclear 42,06 %, natural gas 10,35 %, biomass 4,43 %. GWP-GHG impact of the used electricity mix is 850,0 g CO₂-eq/kWh.
Information about scenarios and additional technical information	The scenario for operational water use is described on chapter "Additional Information".

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	ND	ND	ND	ND	ND	ND	ND	x	x	x	x	x	x
Geography	EU27	EU27	EU27	EU27	-	-	-	-	-	-	-	EU27	EU27	EU27	EU27	EU27	EU27
Specific data used	> 90 %					-	-	-	-	-	-	-	-	-	-	-	-
Variation – products	12 %					-	-	-	-	-	-	-	-	-	-	-	-
Variation – sites	47 %					-	-	-	-	-	-	-	-	-	-	-	-

Modules explained

LCA Modules	
A1 Raw material supply This module contains the supply of raw materials including brass, stainless steel, plastics, rubbers and other materials in smaller quantities.	C1 De-construction This module is assumed to not cause environmental impacts as the de-construction of faucet product 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. Average transportation route covering all the relevant raw materials was developed as there is wide range of possible supply locations even for single raw materials and components. 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 washbasin faucets. The most relevant processes are casting in foundry, production of plastic parts and chrome-plating of brass and plastic parts. 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. It is assumed that 90 % of the brass is headed for material recycling process, which includes casting of brass into brass ingots.
A4 Transport This module contains the transportation of the final product to warehouses from where further distribution takes place. Both truck and ferry transportation are included. Transportation distance is 486-1 074 km by road and 0-123 km by sea depending on the location of the warehouse. The scenario does not include transportation to construction site.	C4 Disposal This module contains final disposal of materials that are not headed for material or energy recovery. Stainless steel, plastic components, rubber components, packaging materials of the final product and 10 % of brass are assumed to be headed for incineration without energy recovery. Other components in smaller quantities are assumed to be headed to landfill.
B7 Operational water use This module contains the production, heating and wastewater treatment of tap water related to the use of washbasin faucet. The scenario for operational water 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. Brass is recycled through casting process, and it is assumed to substitute virgin brass production from the market

Content information

Product components	Weight, kg	Post-consumer material, weight-%	Renewable material, weight-%
Acrylonitrile butadiene styrene	0,0016	0 %	0 %
Aluminium oxide	0,0031	0 %	0 %
Brass	0,8462	0 %	0 %
Chromium	0,0001	0 %	0 %
Copper	0,0003	0 %	0 %
Ethylene propylene diene monomer	0,0035	0 %	0 %
Grease	0,0004	0 %	0 %
Nickel	0,0002	0 %	0 %
Polyamide	0,0035	0 %	0 %
Polybutylene terephthalate GF30	0,0020	0 %	0 %
Polyoxymethylene	0,0015	0 %	0 %
Polyoxymethylene GF10	0,0003	0 %	0 %
Silicone	0,0003	0 %	0 %
Softpex	0,0188	0 %	0 %
Stainless steel	0,0399	0 %	0 %
Svhc	0,0098	0 %	0 %
Zinc	0,0685	0 %	0 %
TOTAL	1,0000	0 %	0 %
Packaging materials	Weight, kg	Weight-% (versus the product)	
Corrugated board	0,2716	27,16 %	
Paper	0,0145	1,45 %	
Polyethylene	0,0030	0,30 %	
Sharp tear	0,0001	0,01 %	
TOTAL	0,2892	28,92 %	

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". The products contain one substance of the "list of substances of very high concern (SVHC)". The substance is lead as a composition in brass alloys up to 3,5% while still complying to the EU Drinking Water Directive (DWD) and 4 MSI positive list for metallic materials.

Environmental Information

Potential environmental impact – mandatory indicators according to EN 15804

Results per 1 kg of Washbasin faucet

Indicator	Unit	A1	A2	A3	Tot. A1-A3	A4	B7	C1	C2	C3	C4	D
GWP-fossil	kg CO ₂ eq.	5,18E+00	2,48E-01	4,90E-01	5,92E+00	1,64E-01	3,09E+02	0,00E+00	1,07E-02	1,22E-02	4,46E-02	-4,21E+00
GWP-biogenic	kg CO ₂ eq.	3,54E-02	1,64E-04	-3,07E-02	4,87E-03	1,41E-04	1,23E+01	0,00E+00	1,03E-05	1,54E-03	5,52E-01	-2,71E-02
GWP-luluc	kg CO ₂ eq.	1,11E-02	1,16E-04	1,71E-03	1,29E-02	6,62E-05	2,73E-01	0,00E+00	5,04E-06	3,84E-06	7,91E-06	-9,32E-03
GWP-total	kg CO ₂ eq.	5,23E+00	2,48E-01	4,61E-01	5,94E+00	1,64E-01	3,22E+02	0,00E+00	1,07E-02	1,37E-02	5,96E-01	-4,24E+00
ODP	kg CFC 11 eq.	1,09E-06	5,54E-08	4,29E-08	1,19E-06	3,77E-08	3,30E-05	0,00E+00	2,41E-09	1,49E-09	2,93E-09	-2,38E-07
AP	mol H ⁺ eq.	3,44E-01	2,57E-03	1,73E-03	3,48E-01	8,71E-04	1,30E+00	0,00E+00	4,26E-05	2,85E-05	1,64E-04	-3,06E-01
EP-freshwater	kg P eq.	1,01E-02	5,32E-06	6,97E-05	1,01E-02	3,81E-06	5,42E-02	0,00E+00	2,98E-07	8,82E-07	1,54E-06	-9,01E-03
EP-marine	kg N eq.	1,82E-02	6,75E-04	8,34E-04	1,97E-02	2,50E-04	1,03E+00	0,00E+00	1,24E-05	8,05E-06	2,61E-04	-1,57E-02
EP-terrestrial	mol N eq.	2,50E-01	7,45E-03	5,47E-03	2,63E-01	2,74E-03	2,57E+00	0,00E+00	1,35E-04	9,43E-05	7,64E-04	-2,15E-01
POCP	kg NMVOC eq.	6,83E-02	2,05E-03	1,29E-03	7,16E-02	8,09E-04	7,28E-01	0,00E+00	4,16E-05	2,66E-05	2,23E-04	-5,92E-02
ADP-minerals&metals*	kg Sb eq.	8,60E-03	7,45E-07	1,50E-06	8,60E-03	5,54E-07	1,10E-03	0,00E+00	4,88E-08	5,49E-08	6,67E-08	-7,61E-03
ADP-fossil*	MJ	6,60E+01	3,62E+00	6,52E+00	7,61E+01	2,46E+00	4,85E+03	0,00E+00	1,60E-01	1,91E-01	1,30E-01	-5,24E+01
WDP	m ³	6,03E+00	1,00E-02	1,09E-01	6,15E+00	7,24E-03	1,77E+02	0,00E+00	5,30E-04	9,24E-04	3,55E-03	-5,33E+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

Results per 1 kg of Washbasin faucet

Indicator	Unit	A1	A2	A3	Tot. A1-A3	A4	B7	C1	C2	C3	C4	D
GWP-GHG1	kg CO2 eq.	5,23E+00	2,48E-01	5,15E-01	5,99E+00	1,64E-01	3,12E+02	0,00E+00	1,07E-02	1,22E-02	1,25E-01	-4,24E+00

Use of resources

Results per 1 kg of Washbasin faucet

Indicator	Unit	A1	A2	A3	Tot. A1-A3	A4	B7	C1	C2	C3	C4	D
PERE	MJ	1,66E+01	4,53E-02	3,33E+00	2,00E+01	3,40E-02	9,56E+02	0,00E+00	2,70E-03	5,05E-02	1,07E-02	-1,38E+01
PERM	MJ	0	0	0	0	0	0	0	0	0	0	0
PERT	MJ	1,66E+01	4,53E-02	3,33E+00	2,00E+01	3,40E-02	9,56E+02	0,00E+00	2,70E-03	5,05E-02	1,07E-02	-1,38E+01
PENRE	MJ	6,60E+01	3,62E+00	6,51E+00	7,61E+01	2,46E+00	4,85E+03	0,00E+00	1,60E-01	1,91E-01	1,30E-01	-5,24E+01
PENRM	MJ.	0	0	0	0	0	0	0	0	0	0	0
PENRT	MJ	6,60E+01	3,62E+00	6,51E+00	7,61E+01	2,46E+00	4,85E+03	0,00E+00	1,60E-01	1,91E-01	1,30E-01	-5,24E+01
SM	kg	0	0	0	0	0	0	0	0	0	0	0
RSF	MJ	0	0	0	0	0	0	0	0	0	0	0
NRSF	MJ	0	0	0	0	0	0	0	0	0	0	0
FW	m3	1,49E-01	3,66E-04	5,16E-03	1,55E-01	2,69E-04	5,40E+00	0,00E+00	2,02E-05	1,75E-04	2,83E-04	-1,32E-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											

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

Waste production

Results per 1 kg of Washbasin faucet

Indicator	Unit	A1	A2	A3	Tot. A1-A3	A4	B7	C1	C2	C3	C4	D
Hazardous waste disposed	kg	4,17E-02	8,19E-06	1,55E-04	4,19E-02	6,82E-06	4,91E-02	0,00E+00	4,29E-07	2,00E-07	4,87E-07	-1,76E-03
Non-hazardous waste disposed	kg	2,08E+00	1,50E-01	2,78E-01	2,51E+00	1,21E-01	1,73E+02	0,00E+00	6,78E-03	1,29E-02	3,23E-02	-1,35E+00
Radioactive waste disposed	kg	1,96E-04	2,43E-05	2,53E-05	2,45E-04	2,15E-05	5,93E-02	0,00E+00	1,07E-06	6,81E-07	6,11E-07	-1,59E-04

Output flows

Results per 1 kg of Washbasin faucet

Indicator	Unit	A1	A2	A3	Tot. A1-A3	A4	B7	C1	C2	C3	C4	D
Components for re-use	kg	0	0	0	0	0	0	0	0	0	0	0
Material for recycling	kg	0	0	0	0	0	0	0	0	0,762	0	0
Materials for energy recovery	kg	0	0	0	0	0	0	0	0	0	0	0
Exported energy, electricity	MJ	0	0	0	0	0	0	0	0	0	0	0
Exported energy, thermal	MJ	0	0	0	0	0	0	0	0	0	0	0

Information on biogenic carbon content

Results per 1 kg of Washbasin faucet

BIOGENIC CARBON CONTENT	Unit	QUANTITY
Biogenic carbon content in product	kg C	0,0000
Biogenic carbon content in packaging	kg C	0,1430

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

Additional information

The scenario for module B7 “Operational water use” 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 harmonised 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	16	years

The annual water consumption according to the parameters stated above is 2 555 l. It is assumed that all of the water consumption for washbasin faucet is hot water. 66,94 kWh of energy is consumed annually for the heating of water. The scenario for operational water use covers 16 years which is the reference service life of washbasin faucets. The energy profile for heating of water is based on Eurostat statistics describing disaggregated final energy consumption in households used for water heating in year 2018. The geographical coverage of the data is Europe (EU27). The following values were applied when modelling the energy profile for heating of domestic water.

Source of energy	Amount	Unit
Solid fossil fuels and peat	1,21	%
Natural gas	32,89	%
Liquefied natural gas	2,48	%
Oil and petroleum products	9,15	%
Other kerosene	0,42	%
Gas oil and diesel oil	6,25	%
Renewables and biofuels	10,54	%
Solar thermal	4,03	%
Ambient heat (heat pumps)	1,06	%
Primary solid biofuels	5,34	%
Biogases	0,09	%
Electricity	16,23	%
District heat	10,31	%
Total	100,00	%

Operational water use scenario

The scenario for operational water use covers the water and energy consumption related to use of washbasin faucet by one person for 16 years according to the calculation parameters described in UWL methodology. The scenario presented in this EPD is an estimation of the potential environmental impacts related to the use stage of faucet product and the scenario aims to emphasize the significance of the use stage in relation to the products life cycle. In reality, the environmental impacts arising from the use stage of the product are very dependent on behavior of the user, nominal flow of the faucet product and energy sources used for heating of domestic water.

The use stage scenario is calculated based on flow rate of 1 l/min to enable further calculations of environmental impacts related to product specific flow rates. More information about the nominal flows of washbasin faucets can be found from Oras Group's website.

Differences versus previous versions

This is an updated version of the EPD for Oras Group's Washbasin faucets. The following changes have been made in relation to the previous version of the EPD:

- LCIA profile for the product group is determined according to the "worst-case scenario" product, which is determined by the share of brass from net weight of product (m-%). LCIA profile was determined as an average of included products for the previous version. This change enables wider variety of products to be included within the product group.
- Use stage scenario is modified so that the flow rate used for calculating the water consumption in the use stage is 1 l/min. Nominal flow of 6 l/min was used in the previous version of the EPD. The change was made due to the fact that the nominal flow of 1 l/min is easier to adapt for the different nominal flows within the Washbasin faucets product group.
- It is assumed that 100 % of the water used in the use scenario is heated water, whereas it was assumed that 40 % of the water is heated in the previous version of the EPD.

References

Disaggregated final energy consumption in households – Energy use – Water heating. Eurostat. 2022.
 Ecobio LCA report – Faucet products. Oras Group. 2022.
 General Programme Instructions of the International EPD® System. Version 4.0.
 MEERP Preparatory Study on Taps and Showers. European Commission. 2014.
 PCR 2019:14. Construction products. Version 1.2.5.
 Taps & showers technical criteria. Unified Water Label. 2020.



Included products

2605FH	Washbasin faucet	2610AF	Washbasin faucet
54372207	Washbasin faucet	571822730004	Washbasin faucet
5526A	Washbasin faucet	45232185	Washbasin faucet
571522730005	Washbasin faucet	5619B	Washbasin faucet
2611FH	Washbasin faucet	1007F	Washbasin faucet
571522730004	Washbasin faucet	52552267	Washbasin faucet
54472207	High washbasin faucet	01092183	Washbasin faucet
1006F	High washbasin faucet	5611B	Washbasin faucet
1006F-33	High washbasin faucet	45022185	Washbasin faucet
3911F-104	Washbasin faucet	571822730005	Washbasin faucet
3914F-105	Washbasin faucet	3914F-104	Washbasin faucet
3911F	Washbasin faucet	1012F	Washbasin faucet
5142229300056	Washbasin faucet	3904	Washbasin faucet
51522293	Washbasin faucet	1012F-102	Washbasin faucet
1510F-105	Washbasin faucet	2601FH	High washbasin faucet
515022930004	Washbasin faucet	1812FGG	Washbasin faucet
515022930005	Washbasin faucet	1012F-104	Washbasin faucet
3911F-105	Washbasin faucet	1012F-105	Washbasin faucet
5142229300066	Washbasin faucet	2602FH	High washbasin faucet
1010F-102	Washbasin faucet	06092203	Washbasin faucet
54562207	Washbasin faucet	1812FG	Washbasin faucet
1510F	Washbasin faucet	1812FG-33	Washbasin faucet
1010F	Washbasin faucet	1014F	Washbasin faucet with washing machine valve
1010F-104	Washbasin faucet	52562267	Washbasin faucet
1010F-105	Washbasin faucet	52562263	Washbasin faucet
5618	Washbasin faucet	52461167	Washbasin faucet, low pressure
1810FGG	Washbasin faucet	5601B	Washbasin faucet
1810FG-33	Washbasin faucet	06131103	Washbasin faucet, low pressure
1810FG	Washbasin faucet	52542267	Washbasin faucet
01516286	Washbasin faucet	09012283	Washbasin faucet
450622830004	Washbasin faucet	52682267	Washbasin faucet
450622830005	Washbasin faucet	4806F	Washbasin faucet
450622830002	Washbasin faucet	4806F-104	Washbasin faucet
5526B	Washbasin faucet	4806F-105	Washbasin faucet
52372267	Washbasin faucet	1812G	Washbasin faucet
2605AF	Washbasin faucet	52402267	Washbasin faucet
52372263	Washbasin faucet	2606FH	Washbasin faucet
2605F	Washbasin faucet	52402263	Washbasin faucet
2611AF	Washbasin faucet	09092283	Washbasin faucet
3910F	Washbasin faucet	1002F	High washbasin faucet
1810G	Washbasin faucet	51402293	Washbasin faucet
3904F-104	Washbasin faucet	1002F-33	High washbasin faucet
4805F-105	Washbasin faucet	3904F	Washbasin faucet
4805F-104	Washbasin faucet	1510FL-105	Washbasin faucet
5791F	Washbasin faucet	2606AF	Washbasin faucet
54542207	Washbasin faucet	1814G	Washbasin faucet with washing machine valve
090522830004	Washbasin faucet	2612F	Washbasin faucet
090522830005	Washbasin faucet	49402203	Washbasin faucet
4801F	High washbasin faucet	49562203	Washbasin faucet
09052283	Washbasin faucet	3912F	Washbasin faucet
06082203	Washbasin faucet	52461163	Washbasin faucet, low pressure
5791BF	Washbasin faucet	2606FH-105	Washbasin faucet
3810F	Washbasin faucet	2605FH-105	Washbasin faucet
090522830002	Washbasin faucet	543722070005	Washbasin faucet
01092283	Washbasin faucet	45012186	Washbasin faucet
52422263	Washbasin faucet	45012185	Washbasin faucet
52422267	Washbasin faucet	01516283	Washbasin faucet
2610F	Washbasin faucet		