

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

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GRUNDDATA

Varubeskrivning

Uponor Tryckrörssystem PE-rör används sedan många år till tryckrörs- och självfallsledningar. PE kännetecknas av stor flexibilitet, trycktålighet och korrosionsbeständighet. Den stora flexibiliteten gör att rören är flexibla för markens sättningar

Övriga upplysningar**Klassificeringar**

ETIM ›	-EC010882 - Plaströr slätt
BK04 ›	-20202 - Tryckrör
BSAB ›	-PB-.5121 - Ledning av PE-rör, standardiserade tryckrör
UNSPSC ›	-40141914

Leverantörsuppgifter**Företagsnamn**

Uponor Infra

Organisationsnummer

5569113813

Adress

Industrivägen 11

Hemsida

www.uponor.se/infra

Miljökontaktperson**Namn**

Maria Nygren

Telefon

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E-post

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HÅLLBARHETSARBETE

Företagets certifiering

- ISO 9001
- ISO 14001
- ISO50000

Polycys och riktlinjer

Kvalitets- och Miljöledningspolicy:

<https://www.uponor.com/sv-se/infra/legal-information/quality-environmental-management-policy>

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INNEHÅLLSDEKLARATION

Kemisk produkt Nej

Innehåller produkten elektronik Nej

Omfattas varan av RoHs-direktivet Nej

Varans vikt

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
Polyetylen, PE, hög densitet (HDPE), låg densitet (LDPE), linjär lågdensitetspolyeten		9002-88-4		99 - 99,5%	
Polyeten, PE, Färgad		9002-88-4		0,5 - 1%	Innehåller inga ämnen klassificerade som farliga som borde beaktas enligt EU förordning

Del av materialinnehållet som är deklarerat 100%

Särskilt farliga ämnen

Varan innehåller INTE några ämnen med särskilt farliga egenskaper (Substances of very high concern, SVHC-ämnena) som finns med på kandidatförteckningen i en koncentration som överstiger 0,1 vikts-%

Utgåva av kandidatförteckningen som har använts

2024-01-23

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

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RÅVAROR

Återvunnet material

Innehåller varan återvunnet material: Nej

Träråvara

Träråvara ingår i varan: Nej

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MILJÖPÅVERKAN

Finns en miljövarudeklaration framtagen enligt EN15804 eller ISO14025 för varan

Ja

Finns annan miljövarudeklaration

Nej

DISTRIBUTION

Beskrivning av emballagehantering för distribution av varan

Förpackningsmaterial av färdiga produkter består av:

- Träramar (buntvirke)
- Stålband,
- Plastband,
- Wellpapp
- Europapallar. Europapallar återanvänds.

Distribution till slutkund sker främst med vägtransport (99-100 %), lastbil med lägst miljöklass 3

En del av godset är packat på EUR-pallar – dvs ett retursystem

En del av godset lastas som bulk, dvs utan emballage. Gäller stora rör och anläggningar

En del av godset är packat på engångsemballage, men optimerat utifrån kundens möjligheter till återvinning

BYGGSCKEDET

Ställer varan särskilda krav vid lagring?

Nej

Ställer varan särskilda krav på omgivande byggvaror?

Nej

BRUKSSKEDET

Finns skötselanvisningar/skötselråd?

Nej

Finns en energimärkning enligt energimärkningsdirektivet (2017/1369/EU) för varan?

Ej relevant

RIVNING

Kräver varan särskilda åtgärder för skydd av hälsa och miljö vid rivning/demontering?

Nej

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

Rör och rördelar kan enkelt demonteras och återanvändas eller materialåtervinnas

Är materialåtervinning möjlig för hela eller delar av varan? Ja

Materialåtervinning är möjligt för hela varan.

Plaströr och rördelar i bygg- och rivningsavfall ska separeras från övrigt avfall och skickas till materialåtervinning.

På Återvinningsindustriernas hemsida finns information om vilka återvinnare som idag erbjuder tjänster för insamling av plaströr:

<https://www.recycling.se/sortering-och-atervinning-av-plastfraktioner-inom-byggsektorn/>

Är energiåtervinning möjlig för hela eller delar av varan? Ja

Brännbart material.

Vi rekommenderar materialåtervinning enligt ovan.

Har leverantören restriktioner och rekommendationer för återanvändning, material- eller energiåtervinning eller deponering? Ja

Vi rekommenderar materialåtervinning enligt ovan.

När den levererade varan blir avfall, klassas den då som farligt avfall? Nej

Avfallskod (EWC) för den levererade varan 170203

RSK-nummer	Eget Artikel-nr	GTIN
251 35 00	1057324	6414908451378
251 35 01	1046824	6414908000866
251 35 27	1057313	6414908451231
251 35 28	1057316	6414908451392
251 35 29	1059589	6414908404299
251 35 30	1086491	6414908481580
251 35 33	1046821	6414908000811
251 35 36	1057386	6414908400093
251 35 38	1023583	6414908401113
251 35 39	1068267	6414908416025
251 35 40	1023586	6414908401144
251 35 41	1048514	6414908000903
251 35 42	1055576	6414908000910
251 35 43	1051892	6414908000927
251 35 82	1057320	6414908481917
251 35 83	1086493	6414908481603
251 35 84	1086494	6414908481610
251 35 85	1086495	6414908481627
251 35 86	1086496	6414908481634
251 35 87	1086497	6414908481641
251 35 88	1057319	6414908451217
251 35 92	1057327	6414908451484
251 35 93	1057328	6414908451538
251 35 94	1057329	6414908451590
251 35 96	1023569	6414908400970
251 35 98	1057333	6414908451842
240 72 20	1120286	6414905634408
240 72 21	1120287	6414905634415
240 72 22	1120288	6414905634422
240 72 23	1120289	6414905634439
240 72 24	1120290	6414905634446
240 72 25	1120291	6414905634453
240 72 26	1120292	6414905634460
240 72 27	1120293	6414905634477
240 72 28	1120294	6414905634484
240 72 29	1120295	6414905634491
240 72 30	1120296	6414905634507
240 72 31	1120297	6414905634514
240 72 32	1120298	6414905634521
240 72 33	1120299	6414905634538
240 72 34	1120301	6414905634552
240 72 35	1120303	6414905634576

252 22 89	1120477	6414900321907
252 22 90	1120478	
252 22 91	1120479	
252 22 92	1120480	
252 22 93	1120481	
252 22 94	1120482	
252 22 95	1120483	
252 22 96	1120484	
252 22 97	1120485	
252 22 98	1120486	
252 22 99	1120487	
252 23 00	1120488	
252 23 01	1120489	
252 23 02	1120490	
252 23 03	1120491	
252 23 04	1120492	
252 23 05	1120493	
252 23 06	1120494	
252 23 07	1120495	
252 23 08	1120496	
252 23 09	1120497	
252 23 10	1139803	
252 23 11	1139805	
252 23 12	1139806	

Bilagor

Produktdatablad

Prestandadeklaration

Säkerhetsblad

RoHs-intyg

Miljövarudeklaration EPD_Uponor_Corporation_Uponor_PE100_Pressure_Pipe_and_Uponor_PE100_RC_Pressure_Pipe_HUB-1149_2024-05-17-komprimerad.pdf

Skötselanvisning

Övriga bifogade dokument

-Reach-Declaration-of-Compliance-Uponor-Nov-21 (2).pdf

ENVIRONMENTAL PRODUCT DECLARATION

IN ACCORDANCE WITH EN 15804+A2 & ISO 14025 / ISO 21930

Uponor PE100 Pressure Pipe and Uponor PE100RC Pressure Pipe
Uponor Corporation



EPD HUB, HUB-1149

Publishing date 21 February 2024, last updated on 21 February 2024, valid until 21 February 2029.

GENERAL INFORMATION

MANUFACTURER

Manufacturer	Uponor Corporation
Address	Ilmalantori 4, 00240 Helsinki, Finland
Contact details	info@uponor.com
Website	www.uponor.com

EPD STANDARDS, SCOPE AND VERIFICATION

Program operator	EPD Hub, hub@epdhub.com
Reference standard	EN 15804+A2:2019 and ISO 14025
PCR	EPD Hub Core PCR version 1.0, 1 Feb 2022
Sector	Construction product
Category of EPD	Third party verified EPD
Scope of the EPD	Cradle to gate with options, A4-A5, and modules C1-C4, D
EPD author	Dr. Shima Holder Hjort, Uponor Corporation
EPD verification	Independent verification of this EPD and data, according to ISO 14025: ☐ Internal certification ☒ External verification
EPD verifier	Magaly González Vázquez, as an authorized verifier acting for EPD Hub Limited

The manufacturer has the sole ownership, liability, and responsibility for the EPD. EPDs within the same product category but from different programs may not be comparable. EPDs of construction products may not be comparable if they do not comply with EN 15804 and if they are not compared in a building context.

PRODUCT

Product name	Uponor PE100 Pressure Pipe and Uponor PE100RC Pressure Pipe
Additional labels	PE100, PE100RC
Product reference	
Place of production	Industrivägen 11, 513 32 Fristad, Sweden; Kouvolantie 365, 15550 Nastola, Finland; Kappelinmäentie 240, 65380 Vaasa, Finland
Period for data	2022
Averaging in EPD	No averaging
Variation in GWP-fossil for A1-A3	0 %

ENVIRONMENTAL DATA SUMMARY

Declared unit	1 kg of pipe
Declared unit mass	1 kg
GWP-fossil, A1-A3 (kgCO ₂ e)	2,09E+00
GWP-total, A1-A3 (kgCO ₂ e)	2,09E+00
Secondary material, inputs (%)	0.299
Secondary material, outputs (%)	2.94
Total energy use, A1-A3 (kWh)	9.4
Total water use, A1-A3 (m ³ e)	2,53E-02

PRODUCT AND MANUFACTURER

ABOUT THE MANUFACTURER

Uponor is rethinking water for future generations. Our offering, including safe drinking water delivery, energy-efficient radiant heating and cooling and reliable infrastructure, enables a more sustainable living environment. We help our customers in residential and commercial construction, municipalities and utilities, as well as different industries to work faster and smarter. We employ about 3,800 professionals in 26 countries in Europe and North America. Over 100 years of expertise and trust form the basis of any successful partnership. This is the basis, on which they can build, in a literal and metaphorical sense. We create trust together with our partners: Customers, prospective customers and suppliers. We establish this with shared knowledge, quality and sustainable results.

PRODUCT DESCRIPTION

Uponor PE100 and PE100RC are pressure pipe systems that have high breaking strength, resistance to pressure shocks and pressure fluctuations, corrosion-proof, good chemical resistance, smooth inside and long service life is used for the transport of drinking water, wastewater, process water and gas. Thanks to the flexibility of the pipes, changes of direction can be carried out with the pipe itself. With PE100 and PE100RC pipes, it is possible to install a line that resists traction forces and thus also settlements in the surrounding ground. With welded joints, the line becomes as strong as the pipe itself. PE100 pipes can be joined by electrofusion (EF), butt welding and mechanical couplings. The pipes are available from outer diameter of 16mm up to 1200 mm and main pressure classes are PN10 and PN16. The pipes are black with coloured stripes indicating the application area:

Wastewater line - Brown stripes

Drinking water transport - Blue stripes

Gas transport - Yellow stripes

Further information can be found at www.uponor.com.

PRODUCT RAW MATERIAL MAIN COMPOSITION

Raw material category	Amount, mass- %	Material origin
Metals	-	-
Minerals	-	-
Fossil materials	100	EU
Bio-based materials	-	-

BIOGENIC CARBON CONTENT

Product's biogenic carbon content at the factory gate

Biogenic carbon content in product, kg C	-
Biogenic carbon content in packaging, kg C	0.00006

FUNCTIONAL UNIT AND SERVICE LIFE

Declared unit	1 kg of pipe
Mass per declared unit	1 kg
Functional unit	-
Reference service life	-

SUBSTANCES, REACH - VERY HIGH CONCERN

The product does not contain any REACH SVHC substances in amounts greater than 0,1 % (1000 ppm).

PRODUCT LIFE-CYCLE

SYSTEM BOUNDARY

This EPD covers the life-cycle modules listed in the following table.

Product stage			Assembly stage		Use stage							End of life stage				Beyond the system boundaries	
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	x	x	x	x	x	
Raw materials	Transport	Manufacturing	Transport	Assembly	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	Deconstr./demol.	Transport	Waste processing	Disposal	Reuse	Recycling

Modules not declared = MND. Modules not relevant = MNR.

MANUFACTURING AND PACKAGING (A1-A3)

The environmental impacts considered for the product stage cover the manufacturing of raw materials used in the production as well as packaging materials and other ancillary materials. Also, fuels used by machines, and handling of waste formed in the production processes at the manufacturing facilities are included in this stage. The study also considers the material losses occurring during the manufacturing processes as well as losses during electricity transmission.

The production method is a pipe extrusion. The different stages are:

- Material conveying
- Extrusion (melting and processing of material)
- Cooling
- Cutting
- Packing

Smallest dimensions poles are packed on a wooden U-frame with a wooden lath on top of it. Bigger dimensions are packed with wooden lath tighten with a plastic or steel band. Coils are tightened with plastic or steel bands. Differences in packaging can occur.

MANUFACTURING PROCESS



TRANSPORT AND INSTALLATION (A4-A5)

Transportation impacts occurred from final products delivery to construction site (A4) cover fuel direct exhaust emissions, environmental impacts of fuel production, as well as related infrastructure emissions.

The transportation distance is defined according to the PCR. The average distance of transportation from the production plant to the installation site is based on the actual sales average figures of the company in the local markets. The installation scenarios in Uponor's infrastructure product EPDs are based on TEPPFA's (The European Plastic Pipe and Fittings Association) industry averaged EPDs. These documents and their background reports include industry consensus estimates of the resource use, emissions and affluents of typical European installations; these parameters have been used as input for the Uponor EPD modelling. Environmental impacts from installation include standardized energy and installation tools, waste packaging materials and release of biogenic carbon dioxide from wood pallets.

Reference:

<https://www.teppfa.eu/sustainability/environmental-footprint/epd/>

PRODUCT USE AND MAINTENANCE (B1-B7)

This EPD does not cover the use phase.

Air, soil, and water impacts during the use phase have not been studied.

PRODUCT END OF LIFE (C1-c4, D)

Since the consumption of energy and natural resources is negligible for disassembling of the end-of-life product, the impacts of demolition are assumed negligible (C1). After ca 100 years of service life 5% of the end-of-life product is assumed to be sent to the closest treatment facilities (C2). The collected 5% from the demolition site is sent to recycling (C3), whereas the remaining 95% is left inert under the ground (C4). Due to the recycling of PE, the end-of-life product is converted into recycled PE (D).



LIFE-CYCLE ASSESSMENT

CUT-OFF CRITERIA

The study does not exclude any modules or processes which are stated mandatory in the reference standard and the applied PCR. The study does not exclude any hazardous materials or substances. The study includes all major raw material and energy consumption. All inputs and outputs of the unit processes, for which data is available for, are included in the calculation. There is no neglected unit process more than 1% of total mass or energy flows. The module specific total neglected input and output flows also do not exceed 5% of energy usage or mass.

ALLOCATION, ESTIMATES AND ASSUMPTIONS

Allocation is required if some material, energy, and waste data cannot be measured separately for the product under investigation. All allocations are done as per the reference standards and the applied PCR. In this study, allocation has been done in the following ways:

Data type	Allocation
Raw materials	No allocation
Packaging materials	Not applicable
Ancillary materials	No allocation
Manufacturing energy and waste	Allocated by mass or volume

AVERAGES AND VARIABILITY

Type of average	No averaging
Averaging method	Not applicable
Variation in GWP-fossil for A1-A3	%

This EPD is product and factory specific and does not contain average calculations.

LCA SOFTWARE AND BIBLIOGRAPHY

This EPD has been created using One Click LCA EPD Generator. The LCA and EPD have been prepared according to the reference standards and ISO 14040/14044. Ecoinvent v3.8 and One Click LCA databases were used as sources of environmental data.

ENVIRONMENTAL IMPACT DATA

CORE ENVIRONMENTAL IMPACT INDICATORS – EN 15804+A2, PEF

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
GWP – total ¹⁾	kg CO ₂ e	2,04E+00	1,12E-02	4,36E-02	2,09E+00	3,83E-02	1,19E-01	MND	MND	MND	MND	MND	MND	MND	2,67E-06	2,35E-04	8,37E-03	7,25E-03	-1,09E-04
GWP – fossil	kg CO ₂ e	2,04E+00	1,12E-02	4,39E-02	2,09E+00	3,83E-02	1,19E-01	MND	MND	MND	MND	MND	MND	MND	2,66E-06	2,35E-04	8,37E-03	7,25E-03	-1,09E-04
GWP – biogenic	kg CO ₂ e	0,00E+00	0,00E+00	-2,32E-04	-2,32E-04	0,00E+00	2,32E-04	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
GWP – LULUC	kg CO ₂ e	6,13E-04	4,14E-06	1,89E-05	6,36E-04	1,41E-05	1,49E-05	MND	MND	MND	MND	MND	MND	MND	8,74E-09	8,65E-08	5,10E-06	6,15E-06	-7,13E-08
Ozone depletion pot.	kg CFC ₁₁ e	4,36E-08	2,58E-09	1,16E-09	4,74E-08	8,80E-09	2,52E-08	MND	MND	MND	MND	MND	MND	MND	1,77E-13	5,40E-11	1,71E-10	1,95E-09	-5,85E-12
Acidification potential	mol H ⁺ e	7,23E-03	4,75E-05	1,21E-04	7,40E-03	1,62E-04	1,21E-03	MND	MND	MND	MND	MND	MND	MND	3,24E-08	9,93E-07	1,37E-05	5,44E-05	-8,50E-07
EP-freshwater ²⁾	kg Pe	3,12E-05	9,18E-08	6,92E-07	3,20E-05	3,13E-07	9,32E-07	MND	MND	MND	MND	MND	MND	MND	1,89E-10	1,92E-09	1,08E-07	1,06E-07	-5,96E-09
EP-marine	kg Ne	1,25E-03	1,41E-05	2,33E-05	1,29E-03	4,82E-05	5,35E-04	MND	MND	MND	MND	MND	MND	MND	3,64E-09	2,95E-07	3,98E-06	1,89E-05	-9,89E-08
EP-terrestrial	mol Ne	1,37E-02	1,56E-04	2,31E-04	1,41E-02	5,31E-04	5,79E-03	MND	MND	MND	MND	MND	MND	MND	4,18E-08	3,26E-06	4,17E-05	2,07E-04	-1,15E-06
POCP (“smog”) ³⁾	kg NMVOCe	6,77E-03	4,98E-05	8,00E-05	6,90E-03	1,70E-04	1,60E-03	MND	MND	MND	MND	MND	MND	MND	1,39E-08	1,04E-06	1,27E-05	5,96E-05	-3,19E-07
ADP-minerals & metals ⁴⁾	kg Sbe	1,38E-05	2,63E-08	1,06E-06	1,49E-05	8,97E-08	8,41E-08	MND	MND	MND	MND	MND	MND	MND	5,80E-10	5,50E-10	4,89E-08	2,53E-08	-8,17E-11
ADP-fossil resources	MJ	7,14E+01	1,68E-01	2,27E-01	7,18E+01	5,75E-01	1,59E+00	MND	MND	MND	MND	MND	MND	MND	2,99E-05	3,52E-03	2,48E-02	1,44E-01	-1,31E-03
Water use ⁵⁾	m ³ e depr.	9,69E-01	7,53E-04	9,71E-03	9,79E-01	2,57E-03	7,68E-03	MND	MND	MND	MND	MND	MND	MND	1,14E-06	1,58E-05	1,08E-03	8,86E-04	-1,82E-05

1) GWP = Global Warming Potential; 2) EP = Eutrophication potential. Required characterisation method and data are in kg P-eq. Multiply by 3,07 to get PO₄e; 3) POCP = Photochemical ozone formation; 4) ADP = Abiotic depletion potential; 5) EN 15804+A2 disclaimer for Abiotic depletion and Water use and optional indicators except Particulate matter and Ionizing radiation, human health. The results of these environmental impact indicators shall be used with care as the uncertainties on these results are high or as there is limited experience with the indicator.

ADDITIONAL (OPTIONAL) ENVIRONMENTAL IMPACT INDICATORS – EN 15804+A2, PEF

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Particulate matter	Incidence	7,22E-08	1,29E-09	1,50E-09	7,50E-08	4,41E-09	3,20E-08	MND	MND	MND	MND	MND	MND	MND	2,82E-13	2,70E-11	3,73E-10	1,04E-09	-7,43E-12
Ionizing radiation ⁶⁾	kBq U235e	1,35E-01	8,02E-04	9,77E-04	1,37E-01	2,74E-03	7,46E-03	MND	MND	MND	MND	MND	MND	MND	1,66E-07	1,68E-05	2,67E-04	7,69E-04	-1,58E-05
Ecotoxicity (freshwater)	CTUe	1,11E+01	1,51E-01	7,08E-01	1,20E+01	5,17E-01	1,19E+00	MND	MND	MND	MND	MND	MND	MND	2,56E-04	3,17E-03	7,38E-02	1,13E-01	-2,41E-03
Human toxicity, cancer	CTUh	6,08E-10	3,72E-12	1,23E-10	7,36E-10	1,27E-11	5,95E-11	MND	MND	MND	MND	MND	MND	MND	1,33E-14	7,79E-14	1,13E-11	4,85E-12	-3,34E-14
Human tox. non-cancer	CTUh	1,31E-08	1,50E-10	9,50E-10	1,42E-08	5,12E-10	8,08E-10	MND	MND	MND	MND	MND	MND	MND	3,48E-13	3,14E-12	9,12E-11	9,06E-11	-1,10E-12
SQP ⁷⁾	-	1,88E+00	1,94E-01	1,06E-01	2,18E+00	6,62E-01	2,18E-01	MND	MND	MND	MND	MND	MND	MND	3,08E-05	4,06E-03	4,79E-02	2,81E-01	-8,03E-04

6) EN 15804+A2 disclaimer for ionizing radiation, human health. This impact category deals mainly with the eventual impact of low dose ionizing radiation on human health of the nuclear fuel cycle. It does not consider effects due to possible nuclear accidents, occupational exposure nor due to radioactive waste disposal in underground facilities. Potential ionizing radiation from the soil, from radon and from some construction materials is also not measured by this indicator; 7) SQP = Land use related impacts/soil quality.

USE OF NATURAL RESOURCES

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Renew. PER as energy ⁸⁾	MJ	1,21E+00	1,90E-03	4,21E+00	5,42E+00	6,47E-03	1,35E-02	MND	MND	MND	MND	MND	MND	MND	3,90E-04	3,97E-05	2,96E-03	2,92E-03	-2,43E-04
Renew. PER as material	MJ	0,00E+00	0,00E+00	2,03E-03	2,03E-03	0,00E+00	-2,03E-03	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Total use of renew. PER	MJ	1,21E+00	1,90E-03	4,21E+00	5,43E+00	6,47E-03	1,15E-02	MND	MND	MND	MND	MND	MND	MND	3,90E-04	3,97E-05	2,96E-03	2,92E-03	-2,43E-04
Non-re. PER as energy	MJ	2,80E+01	1,68E-01	2,26E-01	2,84E+01	5,75E-01	1,59E+00	MND	MND	MND	MND	MND	MND	MND	3,00E-05	3,52E-03	2,48E-02	1,44E-01	-1,31E-03
Non-re. PER as material	MJ	4,34E+01	0,00E+00	1,34E-04	4,34E+01	0,00E+00	-1,34E-04	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	-2,17E+00	-4,13E+01	0,00E+00
Total use of non-re. PER	MJ	7,14E+01	1,68E-01	2,27E-01	7,18E+01	5,75E-01	1,59E+00	MND	MND	MND	MND	MND	MND	MND	3,00E-05	3,52E-03	-2,15E+00	-4,11E+01	-1,31E-03
Secondary materials	kg	2,99E-03	4,67E-05	1,35E-03	4,39E-03	1,60E-04	1,09E-03	MND	MND	MND	MND	MND	MND	MND	1,72E-07	9,78E-07	1,65E-04	5,80E-05	-1,08E-07
Renew. secondary fuels	MJ	2,74E-05	4,72E-07	7,62E-05	1,04E-04	1,61E-06	2,19E-06	MND	MND	MND	MND	MND	MND	MND	6,61E-10	9,87E-09	1,35E-06	1,55E-06	-6,86E-10
Non-ren. secondary fuels	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Use of net fresh water	m ³	2,50E-02	2,18E-05	2,31E-04	2,53E-02	7,44E-05	1,62E-04	MND	MND	MND	MND	MND	MND	MND	3,14E-08	4,56E-07	2,68E-05	1,17E-04	-1,01E-06

8) PER = Primary energy resources.

END OF LIFE – WASTE

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Hazardous waste	kg	4,75E-02	2,23E-04	5,38E-03	5,31E-02	7,62E-04	3,13E-03	MND	MND	MND	MND	MND	MND	MND	4,68E-07	4,67E-06	5,39E-04	2,78E-04	-8,67E-06
Non-hazardous waste	kg	1,33E+00	3,67E-03	4,18E-02	1,38E+00	1,25E-02	2,31E-02	MND	MND	MND	MND	MND	MND	MND	9,49E-06	7,68E-05	7,79E-03	4,18E-01	-2,54E-04
Radioactive waste	kg	4,24E-05	1,13E-06	5,04E-07	4,40E-05	3,85E-06	1,09E-05	MND	MND	MND	MND	MND	MND	MND	8,68E-11	2,36E-08	1,13E-07	9,06E-07	-5,85E-09

END OF LIFE – OUTPUT FLOWS

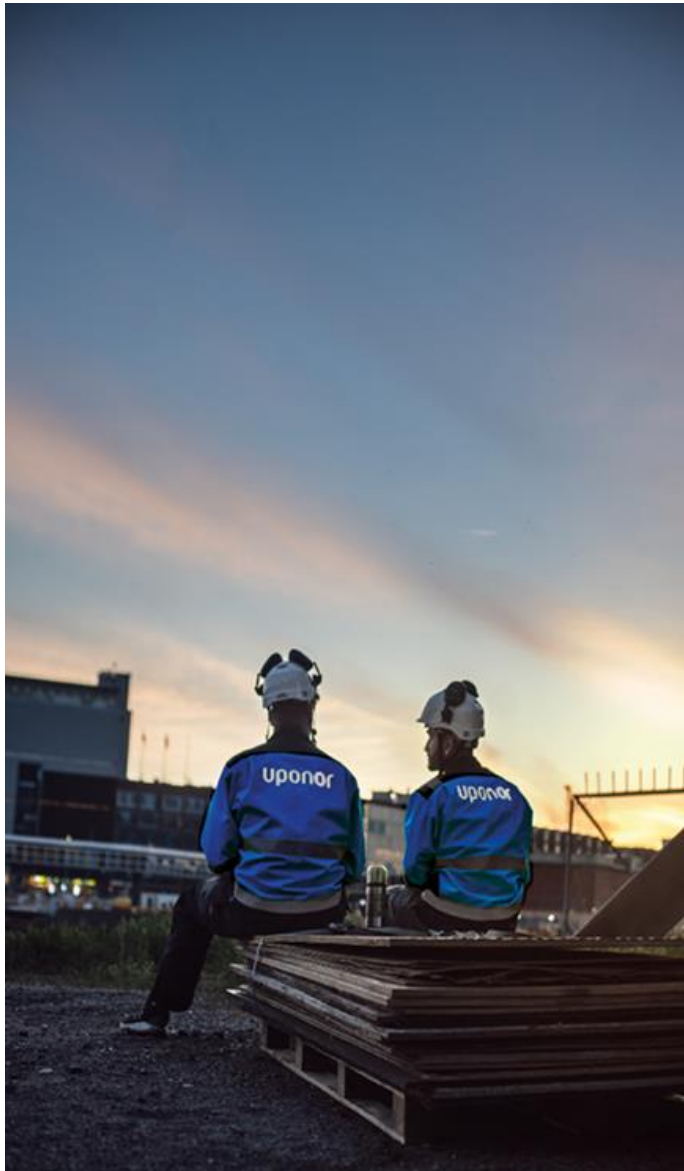
Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Components for re-use	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Materials for recycling	kg	0,00E+00	0,00E+00	1,36E-02	1,36E-02	0,00E+00	3,70E-01	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	5,00E-02	0,00E+00	0,00E+00
Materials for energy rec	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Exported energy	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,48E-03	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00

ENVIRONMENTAL IMPACTS – EN 15804+A1, CML / ISO 21930

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Global Warming Pot.	kg CO ₂ e	1,93E+00	1,11E-02	4,31E-02	1,99E+00	3,79E-02	1,17E-01	MND	MND	MND	MND	MND	MND	MND	2,59E-06	2,32E-04	8,25E-03	7,14E-03	-1,07E-04
Ozone depletion Pot.	kg CFC ₁₁ e	3,79E-08	2,04E-09	1,01E-09	4,09E-08	6,97E-09	2,00E-08	MND	MND	MND	MND	MND	MND	MND	1,56E-13	4,27E-11	1,48E-10	1,55E-09	-4,78E-12
Acidification	kg SO ₂ e	6,03E-03	3,69E-05	1,00E-04	6,17E-03	1,26E-04	8,61E-04	MND	MND	MND	MND	MND	MND	MND	2,76E-08	7,72E-07	1,07E-05	4,11E-05	-7,27E-07
Eutrophication	kg PO ₄ ³ e	1,53E-03	8,40E-06	1,04E-04	1,64E-03	2,87E-05	2,09E-04	MND	MND	MND	MND	MND	MND	MND	1,00E-08	1,76E-07	2,80E-05	1,24E-05	-2,10E-07
POCP ("smog")	kg C ₂ H ₄ e	6,15E-04	1,44E-06	6,68E-06	6,23E-04	4,91E-06	2,02E-05	MND	MND	MND	MND	MND	MND	MND	1,45E-09	3,01E-08	8,56E-07	1,57E-06	-3,11E-08
ADP-elements	kg Sbe	1,38E-05	2,54E-08	1,05E-06	1,49E-05	8,69E-08	8,27E-08	MND	MND	MND	MND	MND	MND	MND	5,78E-10	5,33E-10	4,85E-08	2,45E-08	-8,14E-11
ADP-fossil	MJ	7,14E+01	1,68E-01	2,27E-01	7,18E+01	5,75E-01	1,59E+00	MND	MND	MND	MND	MND	MND	MND	2,99E-05	3,52E-03	2,48E-02	1,44E-01	-1,31E-03

ENVIRONMENTAL IMPACTS – TRACI 2.1. / ISO 21930

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Global Warming Pot.	kg CO ₂ e	1,88E+00	1,11E-02	4,28E-02	1,93E+00	3,79E-02	1,18E-01	MND	MND	MND	MND	MND	MND	MND	2,58E-06	2,32E-04	8,22E-03	7,13E-03	-1,07E-04
Ozone Depletion	kg CFC ₁₁ e	3,76E-08	2,04E-09	1,01E-09	4,07E-08	6,97E-09	2,00E-08	MND	MND	MND	MND	MND	MND	MND	1,54E-13	4,27E-11	1,47E-10	1,55E-09	-4,65E-12
Acidification	kg SO ₂ e	3,18E-01	2,26E-03	5,32E-03	3,26E-01	7,71E-03	6,21E-02	MND	MND	MND	MND	MND	MND	MND	1,36E-06	4,72E-05	6,79E-04	2,67E-03	-3,68E-05
Eutrophication	kg Ne	2,32E-04	4,72E-06	8,12E-06	2,45E-04	1,61E-05	1,01E-04	MND	MND	MND	MND	MND	MND	MND	9,99E-10	9,88E-08	1,34E-06	4,52E-06	-1,90E-08
POCP ("smog")	kg O ₃ e	3,78E-03	3,65E-05	5,33E-05	3,87E-03	1,25E-04	1,36E-03	MND	MND	MND	MND	MND	MND	MND	8,83E-09	7,63E-07	9,62E-06	4,88E-05	-2,58E-07
ADP-fossil	MJ	9,82E+00	2,30E-02	2,13E-02	9,87E+00	7,86E-02	2,22E-01	MND	MND	MND	MND	MND	MND	MND	2,50E-06	4,82E-04	1,91E-03	1,91E-02	-7,01E-05



VERIFICATION STATEMENT

VERIFICATION PROCESS FOR THIS EPD

This EPD has been verified in accordance with ISO 14025 by an independent, third-party verifier by reviewing results, documents and compliance with reference standard, ISO 14025 and ISO 14040/14044, following the process and checklists of the program operator for:

- This Environmental Product Declaration
- The Life-Cycle Assessment used in this EPD
- The digital background data for this EPD

Why does verification transparency matter? [Read more online](#)

This EPD has been generated by One Click LCA EPD generator, which has been verified and approved by the EPD Hub.

THIRD-PARTY VERIFICATION STATEMENT

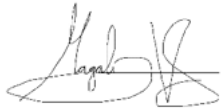
I hereby confirm that, following detailed examination, I have not established any relevant deviations by the studied Environmental Product Declaration (EPD), its LCA and project report, in terms of the data collected and used in the LCA calculations, the way the LCA-based calculations have been carried out, the presentation of environmental data in the EPD, and other additional environmental information, as present with respect to the procedural and methodological requirements in ISO 14025:2010 and reference standard.

I confirm that the company-specific data has been examined as regards plausibility and consistency; the declaration owner is responsible for its factual integrity and legal compliance.

I confirm that I have sufficient knowledge and experience of construction products, this specific product category, the construction industry, relevant standards, and the geographical area of the EPD to carry out this verification.

I confirm my independence in my role as verifier; I have not been involved in the execution of the LCA or in the development of the declaration and have no conflicts of interest regarding this verification.

Magaly González Vázquez, as an authorized verifier acting for EPD Hub Limited
21.02.2024



Declaration of Compliance

According to the REACH regulation (EU) No. 1907/2006 and RoHS directives 2011/65/EU, (EU) 2015/863 and (EU) 2017/2102

2021/11/08

Categorization

Uponor is a downstream user according to article 3 no. 13 of the Reach regulation and therefore not obliged to register its products / systems. Downstream users have to guarantee that they are using only registered substances.

Basis on which conformity is declared

Uponor is aware of the Regulation (EC) No 1907/2006 of the European Parliament and of the Council of December 18th, 2006 concerning the Registration, Evaluation, Authorization and Restriction of Chemicals and later corrigendum to it (REACH), and of the requirements imposed by the directive 2011/65/EU (8th June 2011) of European Parliament and of Council, and by delegated directives (EU)2015/863 (31st march 2015) and (EU) 2017/2102 (15th November 2017) on the Restriction Of the use of certain Hazardous Substances (RoHS).

According to article 31 (1) of REACH the supplier of a substance or a mixture shall provide a safety data sheet where a substance or a mixture meets the criteria in accordance with Regulation (EC) No 1272/2008 and Directive 1907/2006/EC Annex II, XIII or Article 59 (1).

Furthermore article 33 of the regulation obliges the supplier of a product which includes a substance of the "candidate list" in a concentration > 0.1 % (w/w) to inform its consumers with at minimum the name of the substance. Therefore Uponor controls on a regular basis whether its suppliers fulfil their obligations under the REACH regulation regarding Uponor products / systems.

Compliant with the requirements of REACH, Uponor hereby declares based on information provided by its suppliers that as a general rule the following substances are not intentionally used or added during the manufacturing of our products:

- Substances of Very High Concern for authorisation updated by ECHA on 8th July 2021
- Substances under authorisation rules (Annex XIV of 18th December 2020)

If in individual cases these substances are contained in Uponor's final products in concentrations above 0.1 % (w/w) Uponor discloses them in the specific technical documentation of that particular product.

Compliant with the requirements imposed by RoHS, Uponor hereby declares based on information provided by its suppliers that our products falling under the scope of RoHS do not contain any of the hazardous substances restricted by RoHS in concentrations exceeding the maximum levels defined in Annex 2 of RoHS.

Responsible REACH Coordinator

Anders Andtbacka
Director, Standardisation and Legislation

Elena Enguádanos
Standardisation and Legislation Manager

Note: This declaration of conformity is based on the information provided by Uponor's suppliers. Uponor or its group companies shall not be liable for the validity or content of its suppliers' statements.