

LIFE CYCLE ASSESSMENT REPORT

THIS DOCUMENT IS NOT AN EXTERNALLY VERIFIED ENVIRONMENTAL PRODUCT DECLARATION (EPD)

This report is created and published by Uponor Corporation and is based on the Mass Balance Approach (MBA) for the utilization of biobased feedstocks. MBA is currently not recognized within EN15804 and consequently can not be used in formal EPDs. The EPD of the corresponding standard product without biobased feedstocks is available at epdhub.com, EPD number HUB-0963.



Profuse RC Blue Uponor Corporation



GENERAL INFORMATION

MANUFACTURER

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

STANDARDS, SCOPE AND VERIFICATION

Program operator	N/A
Reference standard	EN 15804+A2:2019 and ISO 14025
PCR	N/A
Sector	Construction product
Category	Manufacturer's disclosure document; Parent EPD: EPDHUB-HUB-0561
Scope	Cradle to gate with options, A4-A5, and modules C1-C4, D
Author	Uponor Corporation
Verification	Independent verification of this EPD and data, according to ISO 14025: NOT VERIFIED ☐ Internal certification ☐ External verification
Verifier	N/A

The manufacturer has the sole ownership, liability, and responsibility for the environmental disclosure document. Disclosure documents within the same product category but from different programs may not be comparable. Disclosure documents 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	Profuse RC Blue
Additional labels	-
Product reference	See appendix
Place of production	Uponor Infra Oy, Kouvolantie 365, 15550 Nastola, Finland Uponor Infra Ab, Industrivägen 11, 513 32 Fristad, Sweden
Period for data	2022
Averaging	No averaging
Variation in GWP-fossil for A1-A3	-%

ENVIRONMENTAL DATA SUMMARY

Declared unit	1 kg of pipe
Declared unit mass	1 kg
GWP-fossil, A1-A3 (kgCO ₂ e)	2,16E+00
GWP-total, A1-A3 (kgCO ₂ e)	6,60E-01
Secondary material, inputs (%)	68,7
Secondary material, outputs (%)	2,94
Total energy use, A1-A3 (kWh)	10,9
Total water use, A1-A3 (m ³ e)	8,04E-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

As one of the leading suppliers of plastic pipe systems, Uponor attaches great importance to product development. Uponor ProFuse RC Blue is pressure pipe with protective layer. Media pipe is made of polyethylene and protective layer is made of polypropylene. Protective layer prevents oxidation of pressure pipe and protects the surface of the pipe against damages during transportation and installation. ProFuse RC Blue pipes are used for transfer of pressurized potable water, sewer and gas. Colour of the pipe indicates the purpose of use. Blue with stripes is for drinking water, brown with stripes is for sewer and yellow with stripes is for gas. Pipes are available from outer diameter 63mm up to outer diameter 630mm. Biggest dimensions are available only in poles, but smaller dimensions are available also in coils. The product consists of the following materials 99% PP+PE, and 1% additives.

The Profuse RC Blue pipes are part of Uponor's sustainable product offering. The renewable PE raw material used are from Borealis' Bornewables™ portfolio. These raw materials are made using sustainably-sourced ISCC-certified renewable feedstocks derived solely from waste

and residue streams unfit for human consumption and therefore do not impact food security. Further information can be found at www.uponor.com.

PRODUCT RAW MATERIAL MAIN COMPOSITION

Raw material category	Amount, mass- %	Material origin
Fossil materials	29	EU
Bio-based materials	71	EU

BIOGENIC CARBON CONTENT

Product's biogenic carbon content at the factory gate

Biogenic carbon content in product, kg C	0,61
Biogenic carbon content in packaging, kg C	0,0047

FUNCTIONAL UNIT AND SERVICE LIFE

Declared unit	1 kg of pipe
Mass per declared unit	1 kg

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 document 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	Recovery
																		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.

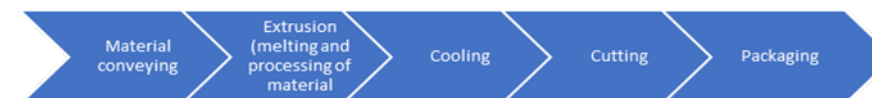
The production method is a pipe extrusion with in-line socketing. Socket and pipe of same material. The different stages are:

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

The finished product is packed on a wooden U-frame with a wooden lath

on top of it. The amount of pipes on a frame differs depending on the pipe diameter. The wooden frame has a nail plate on the edge to strengthen the structure as well as a plastic (NA) or steel band (FR) around to tighten the package. 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 installation scenarios in Uponor's infrastructure product documents are based on TEPPFA's (The European Plastic Pipe and Fittings Association) industry average EPDs. These documents and their background reports include industry consensus estimates of the resource use, emissions and affluents of typical European installations, including (but not limited to) the size of installation trenches, machinery used for digging/excavation and volume of backfilling sand required for the installation. These parameters have been used as input for the modelling Ref: <https://www.teppfa.eu/sustainability/environmental-footprint/epd/>.

PRODUCT USE AND MAINTENANCE (B1-B7)

This document 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 zero (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 PP/PE, the end-of-life product is converted into recycled PP/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	No allocation
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 document is product and factory specific and does not contain average calculations.

LCA SOFTWARE AND BIBLIOGRAPHY

This Environmental Profile Disclosure has been created using One Click LCA EPD Generator. The LCA and disclosure document have been prepared according to the reference standards and ISO 14040/14044. Ecoinvent 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	4,96E-01	1,48E-01	1,66E-02	6,60E-01	1,06E-01	1,35E-01	MND	MND	MND	MND	MND	MND	MND	2,58E-06	3,19E-04	1,27E-01	2,12E+00	-1,28E-01
GWP – fossil	kg CO ₂ e	1,98E+00	1,48E-01	3,00E-02	2,16E+00	1,06E-01	1,18E-01	MND	MND	MND	MND	MND	MND	MND	2,58E-06	3,19E-04	1,17E-02	6,17E-03	6,73E-04
GWP – biogenic	kg CO ₂ e	-2,15E+00	1,06E-04	-1,34E-02	-2,16E+00	6,50E-05	1,74E-02	MND	MND	MND	MND	MND	MND	MND	-1,81E-09	1,95E-07	1,15E-01	2,12E+00	-1,28E-01
GWP – LULUC	kg CO ₂ e	6,65E-01	4,49E-05	2,29E-05	6,65E-01	3,74E-05	1,32E-05	MND	MND	MND	MND	MND	MND	MND	7,42E-09	1,12E-07	1,30E-05	3,26E-06	5,05E-05
Ozone depletion pot.	kg CFC ₁₁ e	7,42E-08	3,47E-08	1,62E-09	1,10E-07	2,43E-08	2,48E-08	MND	MND	MND	MND	MND	MND	MND	1,85E-13	7,30E-11	1,49E-09	1,60E-09	1,47E-09
Acidification potential	mol H ⁺ e	9,87E-03	6,19E-04	1,27E-04	1,06E-02	4,37E-04	1,21E-03	MND	MND	MND	MND	MND	MND	MND	3,29E-08	1,31E-06	5,97E-05	4,62E-05	2,44E-05
EP-freshwater ²⁾	kg Pe	1,69E-04	1,21E-06	1,01E-06	1,71E-04	9,16E-07	6,94E-07	MND	MND	MND	MND	MND	MND	MND	2,81E-10	2,75E-09	3,39E-07	9,80E-08	3,58E-07
EP-marine	kg Ne	8,90E-03	1,86E-04	2,76E-05	9,11E-03	1,29E-04	5,27E-04	MND	MND	MND	MND	MND	MND	MND	3,72E-09	3,89E-07	2,00E-05	1,61E-05	2,06E-05
EP-terrestrial	mol Ne	3,46E-02	2,06E-03	3,00E-04	3,69E-02	1,43E-03	5,78E-03	MND	MND	MND	MND	MND	MND	MND	4,34E-08	4,29E-06	1,77E-04	1,77E-04	1,74E-04
POCP (“smog”) ³⁾	kg NMVOCe	6,47E-03	6,61E-04	9,93E-05	7,23E-03	4,49E-04	1,59E-03	MND	MND	MND	MND	MND	MND	MND	1,42E-08	1,35E-06	5,80E-05	5,06E-05	1,84E-05
ADP-minerals & metals ⁴⁾	kg Sbe	1,30E-05	2,59E-06	1,80E-06	1,73E-05	2,65E-06	2,04E-07	MND	MND	MND	MND	MND	MND	MND	2,66E-10	7,95E-09	2,41E-07	1,01E-07	1,50E-07
ADP-fossil resources	MJ	3,27E+01	2,29E+00	2,46E-01	3,52E+01	1,62E+00	1,62E+00	MND	MND	MND	MND	MND	MND	MND	2,92E-05	4,86E-03	1,94E-01	1,19E-01	-6,88E-01
Water use ⁵⁾	m ³ e depr.	1,01E+00	8,51E-03	8,82E-03	1,03E+00	5,75E-03	1,16E-02	MND	MND	MND	MND	MND	MND	MND	1,32E-06	1,73E-05	3,94E-03	3,57E-03	-8,57E-03

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	6,28E-08	1,32E-08	1,91E-09	7,79E-08	8,18E-09	3,17E-08	MND	MND	MND	MND	MND	MND	MND	2,44E-13	2,46E-11	8,91E-10	7,89E-10	1,60E-09
Ionizing radiation ⁶⁾	kBq U235e	1,79E-01	1,00E-02	6,77E-04	1,90E-01	7,07E-03	6,87E-03	MND	MND	MND	MND	MND	MND	MND	7,87E-08	2,12E-05	5,01E-04	4,76E-04	-1,62E-04
Ecotoxicity (freshwater)	CTUe	1,05E+01	1,76E+00	8,41E-01	1,31E+01	1,26E+00	1,03E+00	MND	MND	MND	MND	MND	MND	MND	2,70E-04	3,80E-03	2,69E-01	9,97E-02	5,01E-01
Human toxicity, cancer	CTUh	3,29E-10	4,52E-11	8,46E-11	4,59E-10	3,58E-11	5,35E-11	MND	MND	MND	MND	MND	MND	MND	1,09E-14	1,08E-13	1,70E-11	3,54E-12	3,12E-11
Human tox. non-cancer	CTUh	1,01E-08	2,08E-09	1,14E-09	1,33E-08	1,45E-09	1,03E-09	MND	MND	MND	MND	MND	MND	MND	3,40E-13	4,35E-12	2,62E-10	8,61E-11	3,58E-10
SQP ⁷⁾	-	3,03E+01	3,41E+00	2,60E-01	3,40E+01	1,80E+00	4,88E-02	MND	MND	MND	MND	MND	MND	MND	2,19E-05	5,42E-03	1,29E-01	3,12E-01	1,37E-01

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	1,28E+01	2,91E-02	3,44E+00	1,62E+01	2,30E-02	1,30E-02	MND	MND	MND	MND	MND	MND	MND	3,89E-04	6,90E-05	8,29E-03	2,05E-03	-4,96E-03
Renew. PER as material	MJ	3,17E+01	0,00E+00	1,69E-01	3,18E+01	0,00E+00	-1,69E-01	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,66E+00
Total use of renew. PER	MJ	4,44E+01	2,91E-02	3,60E+00	4,81E+01	2,30E-02	-1,56E-01	MND	MND	MND	MND	MND	MND	MND	3,89E-04	6,90E-05	8,29E-03	2,05E-03	1,65E+00
Non-re. PER as energy	MJ	2,04E+01	2,29E+00	2,46E-01	2,29E+01	1,62E+00	1,62E+00	MND	MND	MND	MND	MND	MND	MND	2,92E-05	4,86E-03	1,94E-01	1,19E-01	3,99E-03
Non-re. PER as material	MJ	1,55E+01	0,00E+00	0,00E+00	1,55E+01	0,00E+00	0,00E+00	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	-5,00E+00	-1,44E-02
Total use of non-re. PER	MJ	3,59E+01	2,29E+00	2,46E-01	3,85E+01	1,62E+00	1,62E+00	MND	MND	MND	MND	MND	MND	MND	2,92E-05	4,86E-03	1,94E-01	-4,88E+00	-1,04E-02
Secondary materials	kg	6,87E-01	0,00E+00	0,00E+00	6,87E-01	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	4,99E-02
Renew. 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
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	7,97E-02	4,75E-04	1,95E-04	8,04E-02	3,07E-04	6,05E-04	MND	MND	MND	MND	MND	MND	MND	3,61E-08	9,21E-07	4,67E-05	9,37E-05	7,17E-05

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	1,43E-02	2,24E-03	3,64E-03	2,02E-02	1,68E-03	2,54E-03	MND	MND	MND	MND	MND	MND	MND	3,76E-07	5,06E-06	0,00E+00	2,16E-04	1,86E-03
Non-hazardous waste	kg	4,87E-01	2,44E-01	7,73E-02	8,08E-01	1,40E-01	2,84E-02	MND	MND	MND	MND	MND	MND	MND	1,91E-05	4,20E-04	0,00E+00	3,08E-01	3,70E-02
Radioactive waste	kg	1,22E-05	1,57E-05	7,29E-07	2,87E-05	1,11E-05	1,11E-05	MND	MND	MND	MND	MND	MND	MND	8,02E-11	3,32E-08	0,00E+00	7,27E-07	1,09E-07

END OF LIFE – OUTPUT FLOWS

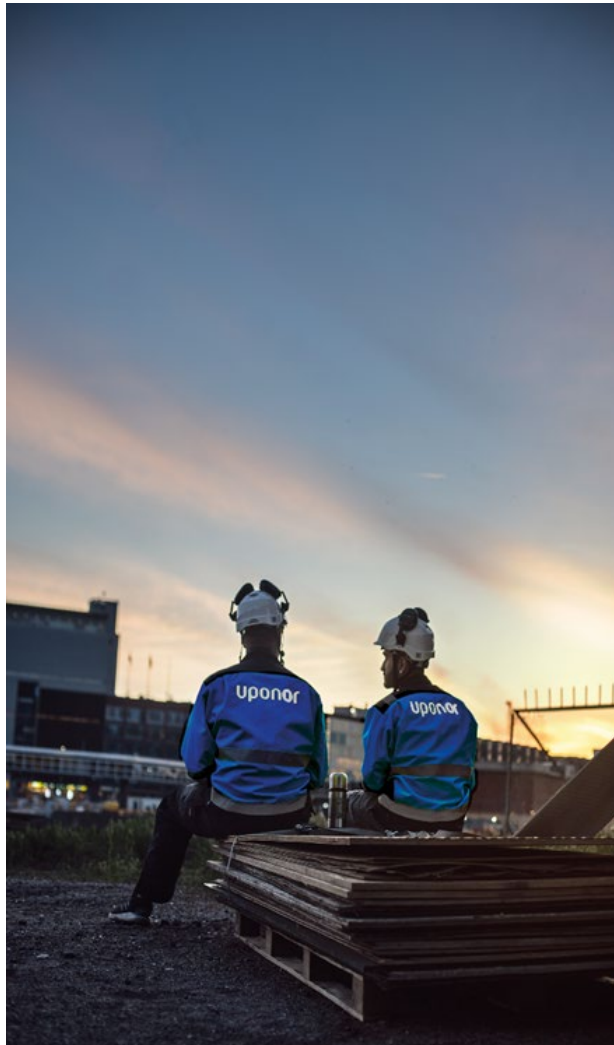
Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Components for re-use	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Materials for recycling	kg	0,00E+00	0,00E+00	1,69E-02	1,69E-02	0,00E+00	0,00E+00	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	6,49E-03	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	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

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	2,84E-01	1,46E-01	3,02E-02	4,60E-01	1,05E-01	1,17E-01	MND	MND	MND	MND	MND	MND	MND	2,50E-06	3,16E-04	1,31E-02	6,09E-03	3,52E-03
Ozone depletion Pot.	kg CFC ₋₁₁ e	3,00E-06	2,75E-08	1,43E-09	3,03E-06	1,93E-08	1,96E-08	MND	MND	MND	MND	MND	MND	MND	1,70E-13	5,81E-11	1,21E-09	1,27E-09	1,06E-09
Acidification	kg SO ₂ e	7,45E-03	3,00E-04	1,03E-04	7,86E-03	2,16E-04	1,85E-04	MND	MND	MND	MND	MND	MND	MND	2,85E-08	6,49E-07	4,44E-05	2,29E-04	1,83E-05
Eutrophication	kg PO ₄ ³ e	5,25E-03	6,08E-05	8,74E-05	5,40E-03	4,50E-05	3,85E-05	MND	MND	MND	MND	MND	MND	MND	1,24E-08	1,35E-07	4,51E-05	7,98E-06	1,00E-04
POCP ("smog")	kg C ₂ H ₄ e	5,59E-04	1,91E-05	7,91E-06	5,86E-04	1,40E-05	1,93E-05	MND	MND	MND	MND	MND	MND	MND	1,53E-09	4,20E-08	3,77E-06	1,29E-06	1,21E-06
ADP-elements	kg Sbe	1,30E-05	2,59E-06	1,80E-06	1,73E-05	2,65E-06	2,04E-07	MND	MND	MND	MND	MND	MND	MND	2,66E-10	7,95E-09	2,41E-07	1,01E-07	1,50E-07
ADP-fossil	MJ	3,27E+01	2,29E+00	2,46E-01	3,52E+01	1,62E+00	1,62E+00	MND	MND	MND	MND	MND	MND	MND	2,92E-05	4,86E-03	1,94E-01	1,19E-01	-6,88E-01

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	6,05E-01	1,46E-01	3,03E-02	7,82E-01	1,05E-01	1,16E-01	MND	MND	MND	MND	MND	MND	MND	2,49E-06	3,15E-04	1,33E-02	6,07E-03	3,55E-03
Ozone Depletion	kg CFC ₋₁₁ e	1,93E-08	3,67E-08	1,82E-09	5,79E-08	2,58E-08	2,62E-08	MND	MND	MND	MND	MND	MND	MND	2,11E-13	7,74E-11	1,61E-09	1,70E-09	1,56E-09
Acidification	kg SO ₂ e	1,92E-03	5,40E-04	1,11E-04	2,57E-03	3,80E-04	1,10E-03	MND	MND	MND	MND	MND	MND	MND	2,65E-08	1,14E-06	5,22E-05	4,12E-05	3,15E-05
Eutrophication	kg Ne	1,47E-04	7,59E-05	1,79E-05	2,41E-04	5,36E-05	9,79E-05	MND	MND	MND	MND	MND	MND	MND	3,01E-09	1,61E-07	1,09E-05	4,69E-06	1,19E-05
POCP ("smog")	kg O ₃ e	2,55E-02	1,18E-02	1,48E-03	3,88E-02	8,19E-03	3,35E-02	MND	MND	MND	MND	MND	MND	MND	2,16E-07	2,46E-05	1,01E-03	1,02E-03	1,00E-03
ADP-fossil	MJ	3,31E+00	3,28E-01	2,31E-02	3,66E+00	2,31E-01	2,34E-01	MND	MND	MND	MND	MND	MND	MND	2,45E-06	6,93E-04	2,42E-02	1,62E-02	-1,15E-01



VERIFICATION STATEMENT

VERIFICATION PROCESS FOR THIS DISCLOSURE DOCUMENT

This document has not been verified in accordance with ISO 14025 by an independent, third-party verifier. Uponor Corporation has the sole ownership, liability, and responsibility for the contents of this document.

ANNEX 1: CONVERSION TABLE FOR PRODUCT STAGE (A1-A3) GWP – EN 15804+A2, PEF

Product number	Product description	Unit product weight (kg per meter of pipe)	GWP - total, Stages A1-A3 (kg CO2e/m of pipe)	Product Length (m)	GWP – total, Stages A1-A3 (kg CO2e)
1141742	PROFUSE RC BLUE SEWER PIPE 400X23,7 PN10 BROWN 12M SDR17 PE100 RC	29.02	19.16	12	229.86
1141743	PROFUSE RC BLUE SEWER PIPE 315X18,7 PN10 BROWN 12M SDR17 PE100 RC	18.18	12.00	12	143.96
1141744	PROFUSE RC BLUE SEWER PIPE 250X14,8 PN10 BROWN 12M SDR17 PE100 RC	11.53	7.61	12	91.32
1141907	PROFUSE RC BLUE WATER PIPE 110X10 PN16 BLUE 12M SDR11 PE100 RC	3.39	2.23	12	26.82
1141909	PROFUSE RC BLUE WATER PIPE 110X10 PN16 BLUE 6M SDR11 PE100 RC	3.39	2.23	6	13.41
1141910	PROFUSE RC BLUE WATER PIPE 110X10 PN16 BLUE SPECIAL LENGTH SDR11 PE100 RC	3.39	2.24	1	2.24
1141911	PROFUSE RC BLUE WATER PIPE 110X6,6 PN10 BLUE 12M SDR17 PE100 RC	2.40	1.58	12	18.98
1141912	PROFUSE RC BLUE WATER PIPE 110X6,6 PN10 BLUE 6M SDR17 PE100 RC	2.40	1.58	6	9.49
1141913	PROFUSE RC BLUE WATER PIPE 110X6,6 PN10 BLUE SPECIAL LENGTH SDR17 PE100 RC	2.40	1.58	1	1.58
1141914	PROFUSE RC BLUE WATER PIPE 125X11,4 PN16 BLUE 12M SDR11 PE100 RC	4.36	2.87	12	34.50
1141915	PROFUSE RC BLUE WATER PIPE 125X7,4 PN10 BLUE 12M SDR17 PE100 RC	3.03	2.00	12	23.96
1141916	PROFUSE RC BLUE WATER PIPE 125X7,4 PN10 BLUE SPECIAL LENGTH SDR17 PE100 RC	3.03	2.00	1	2.00
1141917	PROFUSE RC BLUE WATER PIPE 140X12,7 PN16 BLUE SPECIAL LENGTH SDR11 PE100 RC	5.45	3.60	1	3.60
1141918	PROFUSE RC BLUE WATER PIPE 140X8,3 PN10 BLUE 12M SDR17 PE100 RC	3.76	2.48	12	29.81
1141919	PROFUSE RC BLUE WATER PIPE 140X8,3 PN10 BLUE 6M SDR17 PE100 RC	3.73	2.46	6	14.75
1141920	PROFUSE RC BLUE WATER PIPE 140X8,3 PN10 BLUE SPECIAL LENGTH SDR17 PE100 RC	3.73	2.46	1	2.46
1141921	PROFUSE RC BLUE WATER PIPE 160X14,6 PN16 BLUE 12M SDR11 PE100 RC	7.04	4.65	12	55.74
1141922	PROFUSE RC BLUE WATER PIPE 160X14,6 PN16 BLUE 6M SDR11 PE100 RC	7.04	4.65	6	27.87
1141923	PROFUSE RC BLUE WATER PIPE 160X14,6 PN16 BLUE SPECIAL LENGTH SDR11 PE100 RC	7.04	4.65	1	4.65
1141924	PROFUSE RC BLUE WATER PIPE 160X9,5 PN10 BLUE 12M SDR17 PE100 RC	4.87	3.21	12	38.55
1141925	PROFUSE RC BLUE WATER PIPE 160X9,5 PN10 BLUE 6M SDR17 PE100 RC	4.87	3.21	6	19.27
1141926	PROFUSE RC BLUE WATER PIPE 160X9,5 PN10 BLUE SPECIAL LENGTH SDR17 PE100 RC	4.87	3.21	1	3.21
1141927	PROFUSE RC BLUE WATER PIPE 180X10,7 PN10 BLUE 12M SDR17 PE100 RC	6.11	4.03	12	48.40
1141928	PROFUSE RC BLUE WATER PIPE 180X10,7 PN10 BLUE SPECIAL LENGTH SDR17 PE100 RC	6.39	4.21	1	4.21
1141929	PROFUSE RC BLUE WATER PIPE 180X16,4 PN16 BLUE 12M SDR11 PE100 RC	8.93	5.89	12	70.73
1141930	PROFUSE RC BLUE WATER PIPE 180X16,4 PN16 BLUE SPECIAL LENGTH SDR11 PE100 RC	8.85	5.84	1	5.84
1141931	PROFUSE RC BLUE WATER PIPE 200X11,9 PN10 BLUE 12M SDR17 PE100 RC	7.50	4.95	12	59.38
1141932	PROFUSE RC BLUE WATER PIPE 200X11,9 PN10 BLUE 6M SDR17 PE100 RC	7.50	4.95	6	29.69
1141933	PROFUSE RC BLUE WATER PIPE 200X11,9 PN10 BLUE SPECIAL LENGTH SDR17 PE100 RC	7.50	4.95	1	4.95
1141934	PROFUSE RC BLUE WATER PIPE 200X18,2 PN16 BLUE 12M SDR11 PE100 RC	10.87	7.17	12	86.10
1141935	PROFUSE RC BLUE WATER PIPE 200X18,2 PN16 BLUE SPECIAL LENGTH SDR11 PE100 RC	10.95	7.23	1	7.23
1141937	PROFUSE RC BLUE WATER PIPE 225X13,4 PN10 BLUE 6M SDR17 PE100 RC	9.54	6.30	6	37.78
1141938	PROFUSE RC BLUE WATER PIPE 225X13,4 PN10 BLUE SPECIAL LENGTH SDR17 PE100 RC	9.45	6.24	1	6.24

ANNEX 1: CONVERSION TABLE FOR PRODUCT STAGE (A1-A3) GWP – EN 15804+A2, PEF

Product number	Product description	Unit product weight (kg per meter of pipe)	GWP - total, Stages A1-A3 (kg CO2e/m of pipe)	Product Length (m)	GWP – total, Stages A1-A3 (kg CO2e)
1141939	PROFUSE RC BLUE WATER PIPE 225X20,5 PN16 BLUE 12M SDR11 PE100 RC	13.70	9.04	12	108.52
1141940	PROFUSE RC BLUE WATER PIPE 225X20,5 PN16 BLUE 6M SDR11 PE100 RC	13.70	9.04	6	54.26
1141941	PROFUSE RC BLUE WATER PIPE 225X20,5 PN16 BLUE SPECIAL LENGTH SDR11 PE100 RC	13.70	9.04	1	9.04
1141942	PROFUSE RC BLUE WATER PIPE 250X14,8 PN10 BLUE 12M SDR17 PE100 RC	11.53	7.61	12	91.32
1141943	PROFUSE RC BLUE WATER PIPE 250X14,8 PN10 BLUE 6M SDR17 PE100 RC	11.64	7.68	6	46.09
1141944	PROFUSE RC BLUE WATER PIPE 250X14,8 PN10 BLUE SPECIAL LENGTH SDR17 PE100 RC	11.53	7.61	1	7.61
1141945	PROFUSE RC BLUE WATER PIPE 250X22,7 PN16 BLUE 12M SDR11 PE100 RC	16.80	11.09	12	133.05
1141946	PROFUSE RC BLUE WATER PIPE 250X22,7 PN16 BLUE SPECIAL LENGTH SDR11 PE100 RC	16.80	11.09	1	11.09
1141947	PROFUSE RC BLUE WATER PIPE 280X16,6 PN10 BLUE 12M SDR17 PE100 RC	14.55	9.60	12	115.24
1141948	PROFUSE RC BLUE WATER PIPE 280X16,6 PN10 BLUE SPECIAL LENGTH SDR17 PE100 RC	14.55	9.60	1	9.60
1141949	PROFUSE RC BLUE WATER PIPE 280X25,4 PN16 BLUE 12M SDR11 PE100 RC	21.18	13.98	12	167.75
1141950	PROFUSE RC BLUE WATER PIPE 315X18,7 PN10 BLUE 12M SDR17 PE100 RC	18.18	12.00	12	143.96
1141951	PROFUSE RC BLUE WATER PIPE 315X18,7 PN10 BLUE 6M SDR17 PE100 RC	18.34	12.10	6	72.63
1141952	PROFUSE RC BLUE WATER PIPE 315X18,7 PN10 BLUE SPECIAL LENGTH SDR17 PE100 RC	18.18	12.00	1	12.00
1141953	PROFUSE RC BLUE WATER PIPE 315X28,6 PN16 BLUE 12M SDR11 PE100 RC	26.50	17.49	12	209.84
1141954	PROFUSE RC BLUE WATER PIPE 315X28,6 PN16 BLUE SPECIAL LENGTH SDR11 PE100 RC	26.50	17.49	1	17.49
1141955	PROFUSE RC BLUE WATER PIPE 355X21,1 PN10 BLUE 12M SDR17 PE100 RC	23.04	15.21	12	182.48
1141956	PROFUSE RC BLUE WATER PIPE 355X21,1 PN10 BLUE 6M SDR17 PE100 RC	23.25	15.35	6	92.07
1141957	PROFUSE RC BLUE WATER PIPE 355X21,1 PN10 BLUE SPECIAL LENGTH SDR17 PE100 RC	23.25	15.35	1	15.35
1141958	PROFUSE RC BLUE WATER PIPE 355X32,2 PN16 BLUE 12M SDR11 PE100 RC	33.54	22.14	12	265.64
1141959	PROFUSE RC BLUE WATER PIPE 355X32,2 PN16 BLUE 6M SDR11 PE100 RC	35.15	23.20	6	139.19
1141960	PROFUSE RC BLUE WATER PIPE 355X32,2 PN16 BLUE SPECIAL LENGTH SDR11 PE100 RC	33.54	22.14	1	22.14
1141961	PROFUSE RC BLUE WATER PIPE 400X23,7 PN10 BLUE 12M SDR17 PE100 RC	29.02	19.16	12	229.86
1141962	PROFUSE RC BLUE WATER PIPE 400X23,7 PN10 BLUE 6M SDR17 PE100 RC	29.02	19.16	6	114.93
1141963	PROFUSE RC BLUE WATER PIPE 400X23,7 PN10 BLUE SPECIAL LENGTH SDR17 PE100 RC	29.02	19.16	1	19.16
1141964	PROFUSE RC BLUE WATER PIPE 400X36,3 PN16 BLUE 12M SDR11 PE100 RC	42.48	28.04	12	336.47
1141965	PROFUSE RC BLUE WATER PIPE 400X36,3 PN16 BLUE SPECIAL LENGTH SDR11 PE100 RC	42.48	28.04	1	28.04
1141966	PROFUSE RC BLUE WATER PIPE 450X26,7 PN10 BLUE 12M SDR17 PE100 RC	29.02	19.16	12	229.86
1141967	PROFUSE RC BLUE WATER PIPE 450X26,7 PN10 BLUE SPECIAL LENGTH SDR17 PE100 RC	29.02	19.15	1	19.15
1141968	PROFUSE RC BLUE WATER PIPE 450X40,9 PN16 BLUE SPECIAL LENGTH SDR11 PE100 RC	29.02	19.16	1	19.16
1141969	PROFUSE RC BLUE WATER PIPE 500X29,7 PN10 BLUE 12M SDR17 PE100 RC	45.18	29.82	12	357.83
1141970	PROFUSE RC BLUE WATER PIPE 500X29,7 PN10 BLUE SPECIAL LENGTH SDR17 PE100 RC	45.18	29.82	1	29.82
1141971	PROFUSE RC BLUE WATER PIPE 500X45,4 PN16 BLUE SPECIAL LENGTH SDR11 PE100 RC	65.13	42.99	1	42.99

ANNEX 1: CONVERSION TABLE FOR PRODUCT STAGE (A1-A3) GWP – EN 15804+A2, PEF

Product number	Product description	Unit product weight (kg per meter of pipe)	GWP - total, Stages A1-A3 (kg CO2e/m of pipe)	Product Length (m)	GWP – total, Stages A1-A3 (kg CO2e)
1141972	PROFUSE RC BLUE WATER PIPE 560X33,2 PN10 BLUE 12M SDR17 PE100 RC	0.00	0.00	12	0.00
1141973	PROFUSE RC BLUE WATER PIPE 560X33,2 PN10 BLUE SPECIAL LENGTH SDR17 PE100 RC	0.00	0.00	1	0.00
1141974	PROFUSE RC BLUE WATER PIPE 630X37,4 PN10 BLUE 12M SDR17 PE100 RC	70.10	46.26	12	555.16
1141975	PROFUSE RC BLUE WATER PIPE 630X37,4 PN10 BLUE SPECIAL LENGTH SDR17 PE100 RC	70.10	46.26	1	46.26
1141976	PROFUSE RC BLUE WATER PIPE 630X57,2 PN16 BLUE SPECIAL LENGTH SDR11 PE100 RC	103.38	68.23	1	68.23
1141977	PROFUSE RC BLUE WATER PIPE 63X3,8 PN10 BLUE 12M SDR17 PE100 RC	0.85	0.56	12	6.72
1141978	PROFUSE RC BLUE WATER PIPE 63X3,8 PN10 BLUE 6M SDR17 PE100 RC	0.85	0.56	6	3.36
1141979	PROFUSE RC BLUE WATER PIPE 63X3,8 PN10 BLUE SPECIAL LENGTH SDR17 PE100 RC	0.86	0.57	1	0.57
1141980	PROFUSE RC BLUE WATER PIPE 63X5,8 PN16 BLUE 12M SDR11 PE100 RC	1.18	0.78	12	9.36
1141981	PROFUSE RC BLUE WATER PIPE 63X5,8 PN16 BLUE 6M SDR11 PE100 RC	1.18	0.78	6	4.68
1141982	PROFUSE RC BLUE WATER PIPE 63X5,8 PN16 BLUE SPECIAL LENGTH SDR11 PE100 RC	1.19	0.79	1	0.79
1141983	PROFUSE RC BLUE WATER PIPE 75X4,5 PN10 BLUE 12M SDR17 PE100 RC	1.17	0.77	12	9.25
1141984	PROFUSE RC BLUE WATER PIPE 75X4,5 PN10 BLUE 6M SDR17 PE100 RC	1.17	0.77	6	4.63
1141985	PROFUSE RC BLUE WATER PIPE 75X4,5 PN10 BLUE SPECIAL LENGTH SDR17 PE100 RC	1.19	0.79	1	0.79
1141986	PROFUSE RC BLUE WATER PIPE 75X6,8 PN16 BLUE 12M SDR11 PE100 RC	1.62	1.07	12	12.86
1141987	PROFUSE RC BLUE WATER PIPE 75X6,8 PN16 BLUE 6M SDR11 PE100 RC	1.62	1.07	6	6.43
1141988	PROFUSE RC BLUE WATER PIPE 75X6,8 PN16 BLUE SPECIAL LENGTH SDR11 PE100 RC	1.95	1.29	1	1.29
1141989	PROFUSE RC BLUE WATER PIPE 90X5,4 PN10 BLUE 12M SDR17 PE100 RC	1.64	1.08	12	13.01
1141990	PROFUSE RC BLUE WATER PIPE 90X5,4 PN10 BLUE 6M SDR17 PE100 RC	1.64	1.08	6	6.51
1141991	PROFUSE RC BLUE WATER PIPE 90X5,4 PN10 BLUE SPECIAL LENGTH SDR17 PE100 RC	1.66	1.10	1	1.10
1141992	PROFUSE RC BLUE WATER PIPE 90X8,2 PN16 BLUE 12M SDR11 PE100 RC	2.32	1.53	12	18.33
1141993	PROFUSE RC BLUE WATER PIPE 90X8,2 PN16 BLUE 6M SDR11 PE100 RC	2.32	1.53	6	9.17
1141994	PROFUSE RC BLUE WATER PIPE 90X8,2 PN16 BLUE SPECIAL LENGTH SDR11 PE100 RC	2.32	1.53	1	1.53
1141995	PROFUSE RC BLUE WATER PIPE 110X6,6 PN10 BLUE 100M SDR17 PE100 RC	2.40	1.58	100	158.14
1141996	PROFUSE RC BLUE WATER PIPE 63X3,8 PN10 BLUE 100M SDR17 PE100 RC	0.85	0.56	100	55.97
1141997	PROFUSE RC BLUE WATER PIPE 63X3,8 PN10 BLUE 200M SDR17 PE100 RC	0.86	0.57	200	113.52
1141998	PROFUSE RC BLUE WATER PIPE 63X5,8 PN16 BLUE 100M SDR11 PE100 RC	1.18	0.78	100	77.73
1141999	PROFUSE RC BLUE WATER PIPE 75X4,5 PN10 BLUE 100M SDR17 PE100 RC	1.17	0.77	100	77.09
1142000	PROFUSE RC BLUE WATER PIPE 75X6,8 PN16 BLUE 100M SDR11 PE100 RC	1.65	1.09	100	108.90
1142001	PROFUSE RC BLUE WATER PIPE 90X5,4 PN10 BLUE 100M SDR17 PE100 RC	1.64	1.08	100	108.44
1142002	PROFUSE RC BLUE SEWER PIPE 110X10 PN16 BROWN 12M SDR11 PE100 RC	3.39	2.23	12	26.82
1142003	PROFUSE RC BLUE SEWER PIPE 110X10 PN16 BROWN SPECIAL LENGTH SDR11 PE100 RC	3.39	2.23	1	2.23
1142004	PROFUSE RC BLUE SEWER PIPE 110X6,6 PN10 BROWN 12M SDR17 PE100 RC	2.40	1.58	12	18.98

ANNEX 1: CONVERSION TABLE FOR PRODUCT STAGE (A1-A3) GWP – EN 15804+A2, PEF

Product number	Product description	Unit product weight (kg per meter of pipe)	GWP - total, Stages A1-A3 (kg CO2e/m of pipe)	Product Length (m)	GWP – total, Stages A1-A3 (kg CO2e)
1142005	PROFUSE RC BLUE SEWER PIPE 110X6,6 PN10 BROWN 6M SDR17 PE100 RC	2.41	1.59	6	9.55
1142006	PROFUSE RC BLUE SEWER PIPE 110X6,6 PN10 BROWN SPECIAL LENGTH SDR17 PE100 RC	2.40	1.58	1	1.58
1142007	PROFUSE RC BLUE SEWER PIPE 125X7,4 PN10 BROWN 12M SDR17 PE100 RC	3.03	2.00	12	23.96
1142008	PROFUSE RC BLUE SEWER PIPE 125X7,4 PN10 BROWN SPECIAL LENGTH SDR17 PE100 RC	3.03	2.00	1	2.00
1142009	PROFUSE RC BLUE SEWER PIPE 140X8,3 PN10 BROWN 12M SDR17 PE100 RC	3.76	2.48	12	29.81
1142010	PROFUSE RC BLUE SEWER PIPE 140X8,3 PN10 BROWN 6M SDR17 PE100 RC	3.90	2.58	6	15.46
1142011	PROFUSE RC BLUE SEWER PIPE 140X8,3 PN10 BROWN SPECIAL LENGTH SDR17 PE100 RC	3.80	2.51	1	2.51
1142012	PROFUSE RC BLUE SEWER PIPE 160X14,6 PN16 BROWN 12M SDR11 PE100 RC	7.00	4.62	12	55.45
1142013	PROFUSE RC BLUE SEWER PIPE 160X14,6 PN16 BROWN SPECIAL LENGTH SDR11 PE100 RC	7.04	4.65	1	4.65
1142014	PROFUSE RC BLUE SEWER PIPE 160X9,5 PN10 BROWN 12M SDR17 PE100 RC	4.87	3.21	12	38.55
1142015	PROFUSE RC BLUE SEWER PIPE 160X9,5 PN10 BROWN 6M SDR17 PE100 RC	29.46	19.44	1	19.44
1142016	PROFUSE RC BLUE SEWER PIPE 160X9,5 PN10 BROWN SPECIAL LENGTH SDR17 PE100 RC	0.41	0.27	12	3.21
1142017	PROFUSE RC BLUE SEWER PIPE 180X10,7 PN10 BROWN 12M SDR17 PE100 RC	73.33	48.40	1	48.40
1142018	PROFUSE RC BLUE SEWER PIPE 180X10,7 PN10 BROWN SPECIAL LENGTH SDR17 PE100 RC	0.51	0.34	12	4.03
1142019	PROFUSE RC BLUE SEWER PIPE 180X16,4 PN16 BROWN 12M SDR11 PE100 RC	8.85	5.84	12	70.10
1142020	PROFUSE RC BLUE SEWER PIPE 200X11,9 PN10 BROWN 12M SDR17 PE100 RC	7.50	4.95	12	59.38
1142021	PROFUSE RC BLUE SEWER PIPE 200X11,9 PN10 BROWN 6M SDR17 PE100 RC	7.56	4.99	6	29.94
1142022	PROFUSE RC BLUE SEWER PIPE 200X11,9 PN10 BROWN SPECIAL LENGTH SDR17 PE100 RC	7.50	4.95	1	4.95
1142023	PROFUSE RC BLUE SEWER PIPE 200X18,2 PN16 BROWN 12M SDR11 PE100 RC	10.87	7.17	12	86.10
1142024	PROFUSE RC BLUE SEWER PIPE 225X13,4 PN10 BROWN 12M SDR17 PE100 RC	9.45	6.24	12	74.84
1142025	PROFUSE RC BLUE SEWER PIPE 225X13,4 PN10 BROWN 6M SDR17 PE100 RC	9.54	6.30	6	37.78
1142026	PROFUSE RC BLUE SEWER PIPE 225X13,4 PN10 BROWN SPECIAL LENGTH SDR17 PE100 RC	9.45	6.24	1	6.24
1142027	PROFUSE RC BLUE SEWER PIPE 225X20,5 PN16 BROWN 12M SDR11 PE100 RC	13.70	9.04	12	108.52
1142028	PROFUSE RC BLUE SEWER PIPE 225X20,5 PN16 BROWN 6M SDR11 PE100 RC	13.70	9.04	6	54.26
1142029	PROFUSE RC BLUE SEWER PIPE 225X20,5 PN16 BROWN SPECIAL LENGTH SDR11 PE100 RC	13.70	9.04	1	9.04
1142030	PROFUSE RC BLUE SEWER PIPE 250X14,8 PN10 BROWN 6M SDR17 PE100 RC	11.64	7.68	6	46.09
1142031	PROFUSE RC BLUE SEWER PIPE 250X22,7 PN16 BROWN 12M SDR11 PE100 RC	17.58	11.60	12	139.25
1142032	PROFUSE RC BLUE SEWER PIPE 280X16,6 PN10 BROWN 12M SDR17 PE100 RC	14.55	9.60	12	115.24
1142033	PROFUSE RC BLUE SEWER PIPE 280X16,6 PN10 BROWN SPECIAL LENGTH SDR17 PE100 RC	14.55	9.60	1	9.60
1142034	PROFUSE RC BLUE SEWER PIPE 280X25,4 PN16 BROWN SPECIAL LENGTH SDR11 PE100 RC	20.99	13.85	1	13.85
1142035	PROFUSE RC BLUE SEWER PIPE 315X18,7 PN10 BROWN 6M SDR17 PE100 RC	18.34	12.10	6	72.63
1142036	PROFUSE RC BLUE SEWER PIPE 315X18,7 PN10 BROWN SPECIAL LENGTH SDR17 PE100 RC	18.09	11.94	1	11.94
1142037	PROFUSE RC BLUE SEWER PIPE 315X28,6 PN16 BROWN 12M SDR11 PE100 RC	26.50	17.49	12	209.84

ANNEX 1: CONVERSION TABLE FOR PRODUCT STAGE (A1-A3) GWP – EN 15804+A2, PEF

Product number	Product description	Unit product weight (kg per meter of pipe)	GWP - total, Stages A1-A3 (kg CO2e/m of pipe)	Product Length (m)	GWP – total, Stages A1-A3 (kg CO2e)
1142038	PROFUSE RC BLUE SEWER PIPE 355X21,1 PN10 BROWN 12M SDR17 PE100 RC	23.04	15.21	12	182.48
1142039	PROFUSE RC BLUE SEWER PIPE 355X21,1 PN10 BROWN 6M SDR17 PE100 RC	23.25	15.35	6	92.07
1142040	PROFUSE RC BLUE SEWER PIPE 355X21,1 PN10 BROWN SPECIAL LENGTH SDR17 PE100 RC	23.04	15.21	1	15.21
1142041	PROFUSE RC BLUE SEWER PIPE 355X32,2 PN16 BROWN 12M SDR11 PE100 RC	33.54	22.14	12	265.64
1142042	PROFUSE RC BLUE SEWER PIPE 355X32,2 PN16 BROWN 6M SDR11 PE100 RC	33.54	22.14	6	132.82
1142043	PROFUSE RC BLUE SEWER PIPE 355X32,2 PN16 BROWN SPECIAL LENGTH SDR11 PE100 RC	33.54	22.14	1	22.14
1142044	PROFUSE RC BLUE SEWER PIPE 400X23,7 PN10 BROWN 6M SDR17 PE100 RC	29.02	19.16	6	114.93
1142045	PROFUSE RC BLUE SEWER PIPE 400X23,7 PN10 BROWN SPECIAL LENGTH SDR17 PE100 RC	29.02	19.16	1	19.16
1142046	PROFUSE RC BLUE SEWER PIPE 400X36,3 PN16 BROWN SPECIAL LENGTH SDR11 PE100 RC	42.48	28.04	1	28.04
1142047	PROFUSE RC BLUE SEWER PIPE 450X26,7 PN10 BROWN 12M SDR17 PE100 RC	29.02	19.16	12	229.86
1142048	PROFUSE RC BLUE SEWER PIPE 450X26,7 PN10 BROWN SPECIAL LENGTH SDR17 PE100 RC	29.02	19.15	1	19.15
1142049	PROFUSE RC BLUE SEWER PIPE 500X29,7 PN10 BROWN 12M SDR17 PE100 RC	45.18	29.82	12	357.83
1142050	PROFUSE RC BLUE SEWER PIPE 500X29,7 PN10 BROWN SPECIAL LENGTH SDR17 PE100 RC	45.18	29.82	1	29.82
1142051	PROFUSE RC BLUE SEWER PIPE 560X33,2 PN10 BROWN 12M SDR17 PE100 RC	55.90	36.89	12	442.73
1142052	PROFUSE RC BLUE SEWER PIPE 560X33,2 PN10 BROWN SPECIAL LENGTH SDR17 PE100 RC	55.90	36.89	1	36.89
1142053	PROFUSE RC BLUE SEWER PIPE 560X41,2 PN12,5 BROWN SPECIAL LENGTH SDR13,6 PE100 RC	69.50	45.87	1	45.87
1142054	PROFUSE RC BLUE SEWER PIPE 630X24,1 PN6 BROWN SPECIAL LENGTH SDR26 PE100 RC	47.58	31.40	1	31.40
1142055	PROFUSE RC BLUE SEWER PIPE 630X37,4 PN10 BROWN 12M SDR17 PE100 RC	70.10	46.26	12	555.16
1142056	PROFUSE RC BLUE SEWER PIPE 630X37,4 PN10 BROWN SPECIAL LENGTH SDR17 PE100 RC	70.10	46.26	1	46.26
1142057	PROFUSE RC BLUE SEWER PIPE 63X3,8 PN10 BROWN 12M SDR17 PE100 RC	0.85	0.56	12	6.72
1142058	PROFUSE RC BLUE SEWER PIPE 63X3,8 PN10 BROWN 6M SDR17 PE100 RC	0.85	0.56	6	3.36
1142059	PROFUSE RC BLUE SEWER PIPE 63X3,8 PN10 BROWN SPECIAL LENGTH SDR17 PE100 RC	0.86	0.56	1	0.56
1142060	PROFUSE RC BLUE SEWER PIPE 75X4,5 PN10 BROWN 12M SDR17 PE100 RC	1.17	0.77	12	9.25
1142061	PROFUSE RC BLUE SEWER PIPE 75X4,5 PN10 BROWN 6M SDR17 PE100 RC	1.17	0.77	6	4.63
1142062	PROFUSE RC BLUE SEWER PIPE 75X4,5 PN10 BROWN SPECIAL LENGTH SDR17 PE100 RC	1.19	0.79	1	0.79
1142063	PROFUSE RC BLUE SEWER PIPE 90X5,4 PN10 BROWN 12M SDR17 PE100 RC	1.64	1.08	12	13.01
1142064	PROFUSE RC BLUE SEWER PIPE 90X5,4 PN10 BROWN 6M SDR17 PE100 RC	1.66	1.10	6	6.57
1142065	PROFUSE RC BLUE SEWER PIPE 90X5,4 PN10 BROWN SPECIAL LENGTH SDR17 PE100 RC	1.66	1.10	1	1.10
1142066	PROFUSE RC BLUE SEWER PIPE 90X8,2 PN16 BROWN 12M SDR11 PE100 RC	2.32	1.53	12	18.33
1142067	PROFUSE RC BLUE SEWER PIPE 90X8,2 PN16 BROWN SPECIAL LENGTH SDR11 PE100 RC	2.32	1.53	1	1.53
1142068	PROFUSE RC BLUE SEWER PIPE 110X6,6 PN10 BROWN 100M SDR17 PE100 RC	2.42	1.60	100	159.72
1142069	PROFUSE RC BLUE SEWER PIPE 63X3,8 PN10 BROWN 100M SDR17 PE100 RC	0.85	0.56	100	55.97
1142070	PROFUSE RC BLUE SEWER PIPE 63X3,8 PN10 BROWN 200M SDR17 PE100 RC	0.86	0.57	200	113.52

ANNEX 1: CONVERSION TABLE FOR PRODUCT STAGE (A1-A3) GWP – EN 15804+A2, PEF

Product number	Product description	Unit product weight (kg per meter of pipe)	GWP - total, Stages A1-A3 (kg CO2e/m of pipe)	Product Length (m)	GWP – total, Stages A1-A3 (kg CO2e)
1142071	PROFUSE RC BLUE SEWER PIPE 63X5,8 PN16 BROWN 100M SDR11 PE100 RC	1.19	0.79	100	78.54
1142072	PROFUSE RC BLUE SEWER PIPE 75X4,5 PN10 BROWN 100M SDR17 PE100 RC	1.17	0.77	100	77.09
1142073	PROFUSE RC BLUE SEWER PIPE 90X5,4 PN10 BROWN 100M SDR17 PE100 RC	1.64	1.08	100	108.44
1142074	PROFUSE RC BLUE SEWER PIPE 90X8,2 PN16 BROWN 100M SDR11 PE100 RC	2.30	1.52	100	151.80
1142075	PROFUSE RC BLUE GAS PIPE 110X10 YELLOW 12M SDR11 PE100 RC	3.39	2.24	12	26.84
1142076	PROFUSE RC BLUE GAS PIPE 110X10 YELLOW SPECIAL LENGTH SDR11 PE100 RC	3.42	2.26	1	2.26
1142077	PROFUSE RC BLUE GAS PIPE 110X6,6 YELLOW 12M SDR17 PE100 RC	2.42	1.60	12	19.17
1142078	PROFUSE RC BLUE GAS PIPE 110X6,6 YELLOW SPECIAL LENGTH SDR17 PE100 RC	2.42	1.60	1	1.60
1142079	PROFUSE RC BLUE GAS PIPE 125X11,4 YELLOW 12M SDR11 PE100 RC	4.36	2.87	12	34.50
1142080	PROFUSE RC BLUE GAS PIPE 125X11,4 YELLOW SPECIAL LENGTH SDR11 PE100 RC	4.40	2.90	1	2.90
1142081	PROFUSE RC BLUE GAS PIPE 140X8,3 YELLOW SPECIAL LENGTH SDR17 PE100 RC	3.73	2.46	1	2.46
1142082	PROFUSE RC BLUE GAS PIPE 160X14,6 YELLOW 12M SDR11 PE100 RC	7.04	4.65	12	55.74
1142083	PROFUSE RC BLUE GAS PIPE 160X14,6 YELLOW SPECIAL LENGTH SDR11 PE100 RC	7.10	4.69	1	4.69
1142084	PROFUSE RC BLUE GAS PIPE 160X9,5 YELLOW SPECIAL LENGTH SDR17 PE100 RC	4.87	3.21	1	3.21
1142085	PROFUSE RC BLUE GAS PIPE 200X11,9 YELLOW SPECIAL LENGTH SDR17 PE100 RC	7.44	4.91	1	4.91
1142086	PROFUSE RC BLUE GAS PIPE 200X18,2 YELLOW 12M SDR11 PE100 RC	10.87	7.17	12	86.10
1142087	PROFUSE RC BLUE GAS PIPE 225X13,4 YELLOW SPECIAL LENGTH SDR17 PE100 RC	9.45	6.24	1	6.24
1142088	PROFUSE RC BLUE GAS PIPE 225X20,5 YELLOW 12M SDR11 PE100 RC	13.63	9.00	12	107.97
1142089	PROFUSE RC BLUE GAS PIPE 250X14,8 YELLOW 12M SDR17 PE100 RC	11.42	7.54	12	90.46
1142090	PROFUSE RC BLUE GAS PIPE 250X14,8 YELLOW SPECIAL LENGTH SDR17 PE100 RC	11.42	7.54	1	7.54
1142091	PROFUSE RC BLUE GAS PIPE 250X22,7 YELLOW 12M SDR11 PE100 RC	16.82	11.10	12	133.19
1142092	PROFUSE RC BLUE GAS PIPE 315X28,6 YELLOW 12M SDR11 PE100 RC	26.43	17.44	12	209.30
1142093	PROFUSE RC BLUE GAS PIPE 355X32,2 YELLOW 12M SDR11 PE100 RC	33.46	22.08	12	265.00
1142094	PROFUSE RC BLUE GAS PIPE 400X36,3 YELLOW 12M SDR11 PE100 RC	42.16	27.83	12	333.92
1142095	PROFUSE RC BLUE GAS PIPE 63X3,8 YELLOW 12M SDR17 PE100 RC	0.89	0.59	12	7.06
1142096	PROFUSE RC BLUE GAS PIPE 63X5,8 YELLOW 12M SDR11 PE100 RC	1.21	0.80	12	9.59
1142097	PROFUSE RC BLUE GAS PIPE 90X8,2 YELLOW 12M SDR11 PE100 RC	2.32	1.53	12	18.33
1142098	PROFUSE RC BLUE GAS PIPE 90X8,2 YELLOW SPECIAL LENGTH SDR11 PE100 RC	2.34	1.54	1	1.54
1142099	PROFUSE RC BLUE GAS PIPE 110X10 YELLOW 100M SDR11 PE100 RC	3.42	2.26	100	225.72
1142100	PROFUSE RC BLUE GAS PIPE 90X8,2 YELLOW 100M SDR11 PE100 RC	2.34	1.54	100	154.44
1142101	PROFUSE RC BLUE GAS PIPE 63X5,8 YELLOW 100M SDR11 PE100 RC	1.19	0.79	100	78.54
1142102	PROFUSE RC BLUE GAS PIPE 63X3,8 YELLOW 100M SDR17 PE100 RC	0.86	0.57	100	56.76
1142353	PROFUSE RC BLUE WATER PIPE 225X13,4 PN10 BLUE 12M SDR17 PE100 RC	9.45	6.24	12	74.84