Environmental Profile

This LCA is calculated according to: ISO 14044, ISO 14040 and EN 15804

Ecochain v3.5.64

Ecochain

Product:	3042468 - PE100 Pressure Pipe BK 75x6.8 L=6
Unit:	1 piece
Manufacturer:	Wavin - DE - Westeregeln - verified
Address:	Borrweg 10 39448 Börde-Hakel Germany
Contact:	https://www.wavin.com/en-en

PE pressure pipe that offers the right solution for every part of the main network in your sewerage system.

LCA standard:	EN15804+A2 (2019)
Standard database:	Worldwide - Ecoinvent v 3.6 Cut-Off
Externally verified:	Yes
Issue date:	11-08-2022
End of validity:	11-08-2027
Verifier:	Martijn van Hövell - SGS Search

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SGS SEARCH

This LCA was evaluated according to EN15804+A2. It was concluded that the LCA complies with this standard.

The LCA background information and project dossier have been registered in the online Ecochain application in the account Wavin - DE - Westeregeln - verified (2020). (☑ = module declared, MND = module not declared).

A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
☑	☑	☑	MND	MND	MND	MND	MND	MND	MND	MND	MND	MND	☑	☑	☑	☑

Product stage

A1 Raw material supply A2 Transport A3 Manufacturing

Construction process stage

A4 Transport gate to site
A5 Assembly / Construction installation process

Use stage

B1 Use B2 Maintenance B3 Repair B4 Replacement B5 Refurbishment
B6 Operational energy use B7 Operational water use

End-of-Life stage

C1 De-construction demolition C2 Transport C3 Waste processing
C4 Disposal

Benefits and loads beyond the system boundaries

D Reuse- Recovery- Recycling- potential

Environmental impacts and parameters

GWP-total = EF Climate Change [kg CO2 eq]; **GWP-f** = EF Climate change - Fossil [kg CO2 eq]; **GWP-b** = EF Climate Change - Biogenic [kg CO2 eq]; **GWP-luluc** = EF Climate Change - Land use and LU change [kg CO2 eq]; **ODP** = EF Ozone depletion [kg CFC11 eq]; **AP** = EF Acidification [mol H+ eq]; **EP-fw** = EF Eutrophication, freshwater [kg P eq]; **EP-m** = EF Eutrophication, marine [kg N eq]; **EP-T** = EF Eutrophication, terrestrial [mol N eq]; **POCP** = EF Photochemical ozone formation [kg NMVOC eq]; **ADP-mm** = EF Resource use, minerals and metals [kg Sb eq]; **ADP-f** = EF Resource use, fossils [MJ]; **WDP** = EF Water use [m3 depriv.]; **PM** = EF Particulate matter [disease inc.]; **IR** = EF Ionising radiation [kBq U-235 eq]; **ETP-fw** = EF Ecotoxicity, freshwater [CTUe]; **HTP-c** = EF Human toxicity, cancer [CTUh]; **HTP-nc** = EF Human toxicity, non-cancer [CTUh]; **SQP** = EF Land use [Pt]; **PERE** = Use of renewable primary energy excluding renewable primary energy resources used as raw materials [MJ]; **PERM** = Use of renewable primary energy resources used as raw materials [MJ]; **PERT** = Total use of renewable primary energy resources [MJ]; **PENRE** = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials [MJ]; **PENRM** = Use of non-renewable primary energy resources used as raw materials [MJ]; **PENRT** = Total use of non-renewable primary energy resources [MJ]; **PET** = Total energy [MJ]; **SM** = Use of secondary material [kg]; **RSF** = Use of renewable secondary fuels [MJ]; **NRSF** = Use of non-renewable secondary fuels [MJ]; **FW** = Use of net fresh water [m3]; **HWD** = Hazardous waste disposed [kg]; **NHWD** = Non-hazardous waste disposed [kg]; **RWD** = Radioactive waste disposed [kg]; **CRU** = Components for re-use [kg]; **MFR** = Materials for recycling [kg]; **MER** = Materials for energy recovery [kg]; **EE** = Exported energy [MJ]; **EET** = Exported energy thermic [MJ]; **EEE** = Exported energy electric [MJ]

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Results

Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	1.79E+1	4.05E-1	4.60E-1	1.87E+1	2.34E-1	7.61E+0	1.30E-1	-1.17E+1	1.50E+1
GWP-f	kg CO2 eq	1.78E+1	4.05E-1	3.67E-1	1.85E+1	2.34E-1	7.62E+0	1.30E-1	-1.17E+1	1.48E+1
GWP-b	kg CO2 eq	8.64E-2	1.87E-4	4.37E-2	1.30E-1	1.42E-4	-8.79E-3	9.73E-5	-4.43E-2	7.74E-2
GWP-luluc	kg CO2 eq	5.31E-3	1.48E-4	4.97E-2	5.52E-2	8.27E-5	1.31E-3	1.86E-6	-2.66E-3	5.39E-2
ODP	kg CFC11 eq	9.73E-7	8.93E-8	4.32E-8	1.11E-6	5.39E-8	1.71E-7	2.76E-9	-5.61E-7	7.72E-7
AP	mol H+ eq	6.63E-2	2.35E-3	2.27E-3	7.09E-2	1.33E-3	7.19E-3	6.59E-5	-3.24E-2	4.72E-2
EP-fw	kg P eq	2.93E-4	4.08E-6	8.59E-6	3.06E-4	1.92E-6	3.79E-5	8.56E-8	-1.46E-4	2.00E-4
EP-m	kg N eq	1.11E-2	8.27E-4	4.24E-4	1.24E-2	4.76E-4	2.09E-3	4.66E-5	-5.92E-3	9.05E-3
EP-T	mol N eq	1.24E-1	9.11E-3	4.38E-3	1.37E-1	5.25E-3	2.30E-2	2.68E-4	-6.58E-2	9.98E-2
POCP	kg NMVOC eq	5.92E-2	2.60E-3	1.26E-3	6.30E-2	1.50E-3	7.27E-3	1.05E-4	-3.07E-2	4.12E-2
ADP-mm	kg Sb eq	1.60E-4	1.02E-5	1.25E-5	1.82E-4	6.05E-6	2.84E-5	6.62E-8	-7.55E-5	1.41E-4
ADP-f	MJ	6.32E+2	6.10E+0	4.19E+0	6.42E+2	3.59E+0	2.28E+1	2.02E-1	-3.51E+2	3.18E+2
WDP	m3 depriv.	1.36E+1	2.18E-2	2.83E+0	1.65E+1	1.10E-2	4.48E-1	9.24E-4	-6.81E+0	1.01E+1
PM	disease inc.	6.31E-7	3.63E-8	1.84E-8	6.86E-7	2.11E-8	1.18E-7	1.39E-9	-2.56E-7	5.71E-7
IR	kBq U-235 eq	5.45E-1	2.56E-2	9.91E-3	5.80E-1	1.57E-2	6.86E-2	9.40E-4	-2.12E-1	4.54E-1
ETP-fw	CTUe	1.14E+2	5.44E+0	1.15E+1	1.30E+2	2.91E+0	2.59E+1	1.78E-1	-5.09E+1	1.08E+2
HTP-c	CTUh	4.65E-9	1.76E-10	4.30E-10	5.26E-9	1.04E-10	3.07E-9	4.90E-12	-2.42E-9	6.01E-9
HTP-nc	CTUh	1.10E-7	5.95E-9	1.14E-8	1.28E-7	3.47E-9	3.88E-8	1.13E-10	-5.41E-8	1.16E-7
SQP	Pt	2.40E+1	5.29E+0	3.46E-1	2.97E+1	3.07E+0	1.82E+1	5.18E-1	-1.11E+1	4.03E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.02E+1	7.64E-2	2.68E+1	3.70E+1	5.15E-2	1.12E+0	7.98E-3	-5.07E+0	3.32E+1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.02E+1	7.64E-2	2.68E+1	3.70E+1	5.15E-2	1.12E+0	7.98E-3	-5.07E+0	3.32E+1
PENRE	MJ	6.77E+2	6.48E+0	4.49E+0	6.88E+2	3.81E+0	2.43E+1	2.14E-1	-3.78E+2	3.38E+2
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	6.77E+2	6.48E+0	4.49E+0	6.88E+2	3.81E+0	2.43E+1	2.14E-1	-3.78E+2	3.38E+2
PET	MJ	6.88E+2	6.55E+0	3.13E+1	7.25E+2	3.86E+0	2.54E+1	2.22E-1	-3.83E+2	3.72E+2
SM	kg	0	0	0	0	0	0	0	0	0
RSF	MJ	0	0	0	0	0	0	0	0	0
NRSF	MJ	0	0	0	0	0	0	0	0	0
FW	m3	2.06E-1	7.43E-4	6.72E-2	2.74E-1	4.06E-4	1.32E-2	2.49E-4	-1.04E-1	1.84E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	8.39E-5	1.55E-5	5.70E-6	1.05E-4	9.18E-6	3.71E-5	2.42E-7	-1.03E-4	4.85E-5
NHWD	kg	5.72E-1	3.87E-1	7.40E-3	9.66E-1	2.22E-1	1.12E+0	8.89E-1	-2.86E-1	2.91E+0
RWD	kg	5.94E-4	4.01E-5	1.36E-5	6.48E-4	2.44E-5	8.69E-5	1.32E-6	-1.96E-4	5.64E-4
CRU	kg	0	0	0	0	0	0	0	0	0
MFR	kg	0	0	0	0	0	0	0	0	0
MER	kg	0	0	0	0	0	0	0	0	0
EE	MJ	0	0	0	0	0	0	0	0	0
EET	MJ	0	0	0	0	0	0	0	0	0
EEE	MJ	0	0	0	0	0	0	0	0	0