Environmental Profile

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

Ecochain v3.5.64

Product:	3041825 - PE100 Pressure Pipe BK 125x7.4 L=50
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

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]

Statement of Confidentiality

Results

Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	2.80E+2	6.36E+0	6.49E+0	2.93E+2	3.68E+0	1.19E+2	2.03E+0	-1.84E+2	2.34E+2
GWP-f	kg CO2 eq	2.79E+2	6.35E+0	5.24E+0	2.90E+2	3.67E+0	1.20E+2	2.04E+0	-1.84E+2	2.32E+2
GWP-b	kg CO2 eq	1.36E+0	2.93E-3	5.86E-1	1.95E+0	2.23E-3	-1.47E-1	1.53E-3	-6.96E-1	1.11E+0
GWP-luluc	kg CO2 eq	8.34E-2	2.33E-3	6.64E-1	7.50E-1	1.30E-3	2.06E-2	2.92E-5	-4.18E-2	7.30E-1
ODP	kg CFC11 eq	1.53E-5	1.40E-6	6.49E-7	1.73E-5	8.46E-7	2.68E-6	4.34E-8	-8.81E-6	1.21E-5
AP	mol H+ eq	1.04E+0	3.69E-2	3.18E-2	1.11E+0	2.09E-2	1.13E-1	1.04E-3	-5.08E-1	7.36E-1
EP-fw	kg P eq	4.60E-3	6.41E-5	1.21E-4	4.78E-3	3.02E-5	5.95E-4	1.34E-6	-2.29E-3	3.12E-3
EP-m	kg N eq	1.74E-1	1.30E-2	6.20E-3	1.93E-1	7.48E-3	3.28E-2	7.33E-4	-9.29E-2	1.41E-1
EP-T	mol N eq	1.94E+0	1.43E-1	6.34E-2	2.14E+0	8.25E-2	3.61E-1	4.20E-3	-1.03E+0	1.56E+0
POCP	kg NMVOC eq	9.29E-1	4.09E-2	1.82E-2	9.88E-1	2.36E-2	1.14E-1	1.65E-3	-4.82E-1	6.45E-1
ADP-mm	kg Sb eq	2.51E-3	1.61E-4	1.68E-4	2.84E-3	9.50E-5	4.47E-4	1.04E-6	-1.19E-3	2.19E-3
ADP-f	MJ	9.92E+3	9.58E+1	6.07E+1	1.01E+4	5.64E+1	3.58E+2	3.17E+0	-5.51E+3	4.98E+3
WDP	m3 depriv.	2.14E+2	3.43E-1	3.81E+1	2.52E+2	1.73E-1	7.03E+0	1.45E-2	-1.07E+2	1.52E+2
PM	disease inc.	9.90E-6	5.71E-7	2.70E-7	1.07E-5	3.31E-7	1.86E-6	2.18E-8	-4.02E-6	8.93E-6
IR	kBq U-235 eq	8.55E+0	4.02E-1	1.52E-1	9.11E+0	2.46E-1	1.08E+0	1.48E-2	-3.32E+0	7.12E+0
ETP-fw	CTUe	1.78E+3	8.55E+1	1.58E+2	2.03E+3	4.58E+1	4.06E+2	2.79E+0	-8.00E+2	1.68E+3
HTP-c	CTUh	7.30E-8	2.77E-9	5.91E-9	8.17E-8	1.63E-9	4.82E-8	7.70E-11	-3.80E-8	9.35E-8
HTP-nc	CTUh	1.73E-6	9.35E-8	1.55E-7	1.98E-6	5.46E-8	6.09E-7	1.78E-9	-8.51E-7	1.79E-6
SQP	Pt	3.76E+2	8.31E+1	5.38E+0	4.65E+2	4.82E+1	2.86E+2	8.13E+0	-1.75E+2	6.33E+2
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.60E+2	1.20E+0	3.58E+2	5.19E+2	8.09E-1	1.77E+1	1.25E-1	-7.96E+1	4.58E+2
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.60E+2	1.20E+0	3.58E+2	5.19E+2	8.09E-1	1.77E+1	1.25E-1	-7.96E+1	4.58E+2
PENRE	MJ	1.06E+4	1.02E+2	6.49E+1	1.08E+4	5.98E+1	3.81E+2	3.36E+0	-5.94E+3	5.31E+3
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.06E+4	1.02E+2	6.49E+1	1.08E+4	5.98E+1	3.81E+2	3.36E+0	-5.94E+3	5.31E+3
PET	MJ	1.08E+4	1.03E+2	4.23E+2	1.13E+4	6.07E+1	3.99E+2	3.49E+0	-6.02E+3	5.76E+3
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	3.23E+0	1.17E-2	9.04E-1	4.15E+0	6.38E-3	2.07E-1	3.92E-3	-1.63E+0	2.73E+0

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.32E-3	2.43E-4	8.95E-5	1.65E-3	1.44E-4	5.83E-4	3.80E-6	-1.62E-3	7.63E-4
NHWD	kg	8.97E+0	6.08E+0	1.14E-1	1.52E+1	3.49E+0	1.76E+1	1.40E+1	-4.49E+0	4.57E+1
RWD	kg	9.34E-3	6.29E-4	2.14E-4	1.02E-2	3.83E-4	1.37E-3	2.07E-5	-3.09E-3	8.86E-3
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

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