

Environmental Profile

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

Ecochain v3.5.64



Product: 3042412 - PE100 Pressure Pipe BK 140x8.3 L=12

Unit: 1 piece

Manufacturer: Wavin - DE - Westeregeln - verified

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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



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

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

Use stage

End-of-Life stage

A1 Raw material supply A2 Transport A3 Manufacturing

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

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

Construction process stage

A4 Transport gate to site

A5 Assembly / Construction installation process

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]; **SOQ** = 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	8.44E+1	1.91E+0	1.57E+0	8.79E+1	1.11E+0	3.60E+1	6.13E-1	-5.55E+1	7.01E+1
GWP-f	kg CO2 eq	8.40E+1	1.91E+0	1.31E+0	8.72E+1	1.11E+0	3.60E+1	6.13E-1	-5.53E+1	6.96E+1
GWP-b	kg CO2 eq	4.09E-1	8.83E-4	1.24E-1	5.34E-1	6.71E-4	-4.16E-2	4.60E-4	-2.10E-1	2.84E-1
GWP-luluc	kg CO2 eq	2.51E-2	7.01E-4	1.39E-1	1.65E-1	3.91E-4	6.21E-3	8.79E-6	-1.26E-2	1.59E-1
ODP	kg CFC11 eq	4.60E-6	4.22E-7	1.80E-7	5.20E-6	2.55E-7	8.08E-7	1.31E-8	-2.65E-6	3.63E-6
AP	mol H+ eq	3.13E-1	1.11E-2	7.57E-3	3.32E-1	6.30E-3	3.40E-2	3.12E-4	-1.53E-1	2.20E-1
EP-fw	kg P eq	1.38E-3	1.93E-5	2.92E-5	1.43E-3	9.10E-6	1.79E-4	4.05E-7	-6.89E-4	9.33E-4
EP-m	kg N eq	5.24E-2	3.91E-3	1.63E-3	5.79E-2	2.25E-3	9.89E-3	2.21E-4	-2.80E-2	4.23E-2
EP-T	mol N eq	5.84E-1	4.31E-2	1.62E-2	6.43E-1	2.48E-2	1.09E-1	1.27E-3	-3.11E-1	4.67E-1
POCP	kg NMVOC eq	2.80E-1	1.23E-2	4.68E-3	2.97E-1	7.10E-3	3.44E-2	4.96E-4	-1.45E-1	1.93E-1
ADP-mm	kg Sb eq	7.55E-4	4.85E-5	3.56E-5	8.39E-4	2.86E-5	1.34E-4	3.13E-7	-3.57E-4	6.45E-4
ADP-f	MJ	2.99E+3	2.89E+1	1.55E+1	3.03E+3	1.70E+1	1.08E+2	9.54E-1	-1.66E+3	1.50E+3
WDP	m3 depriv.	6.43E+1	1.03E-1	8.13E+0	7.26E+1	5.21E-2	2.12E+0	4.37E-3	-3.22E+1	4.25E+1
PM	disease inc.	2.98E-6	1.72E-7	7.09E-8	3.22E-6	9.98E-8	5.59E-7	6.56E-9	-1.21E-6	2.68E-6
IR	kBq U-235 eq	2.58E+0	1.21E-1	4.42E-2	2.74E+0	7.42E-2	3.25E-1	4.45E-3	-1.00E+0	2.14E+0
ETP-fw	CTUe	5.37E+2	2.57E+1	3.62E+1	5.99E+2	1.38E+1	1.22E+2	8.41E-1	-2.41E+2	4.95E+2
HTP-c	CTUh	2.20E-8	8.34E-10	1.34E-9	2.41E-8	4.90E-10	1.45E-8	2.32E-11	-1.15E-8	2.77E-8
HTP-nc	CTUh	5.21E-7	2.81E-8	3.39E-8	5.83E-7	1.64E-8	1.83E-7	5.35E-10	-2.56E-7	5.28E-7
SQP	Pt	1.14E+2	2.50E+1	1.59E+0	1.40E+2	1.45E+1	8.61E+1	2.45E+0	-5.26E+1	1.91E+2
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	4.81E+1	3.61E-1	7.49E+1	1.23E+2	2.43E-1	5.32E+0	3.78E-2	-2.40E+1	1.05E+2
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	4.81E+1	3.61E-1	7.49E+1	1.23E+2	2.43E-1	5.32E+0	3.78E-2	-2.40E+1	1.05E+2
PENRE	MJ	3.20E+3	3.06E+1	1.66E+1	3.25E+3	1.80E+1	1.15E+2	1.01E+0	-1.79E+3	1.59E+3
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	3.20E+3	3.06E+1	1.66E+1	3.25E+3	1.80E+1	1.15E+2	1.01E+0	-1.79E+3	1.59E+3
PET	MJ	3.25E+3	3.10E+1	9.15E+1	3.37E+3	1.83E+1	1.20E+2	1.05E+0	-1.81E+3	1.70E+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	9.73E-1	3.51E-3	1.93E-1	1.17E+0	1.92E-3	6.23E-2	1.18E-3	-4.92E-1	7.43E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	3.96E-4	7.31E-5	2.70E-5	4.96E-4	4.34E-5	1.75E-4	1.15E-6	-4.87E-4	2.29E-4
NHWD	kg	2.70E+0	1.83E+0	3.35E-2	4.56E+0	1.05E+0	5.29E+0	4.20E+0	-1.35E+0	1.38E+1
RWD	kg	2.81E-3	1.89E-4	6.44E-5	3.06E-3	1.15E-4	4.11E-4	6.24E-6	-9.29E-4	2.67E-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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