

Environmental Profile

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

Ecochain v3.5.80



Product: 3022138 - PVCU Access BR 110
Unit: 1 piece
Manufacturer: Wavin - PL -Buk - Extra products

PVC external sewage pipes with a solid wall are produced in two classes of circumferential stiffness (SN8, SN4), which enables optimal selection depending on the load conditions. A wide portfolio of system fittings facilitates the construction of many schemes of sewage networks, as well as connections with systems made of other materials. Diameter range DN/OD 110-500mm. The pipes meet the requirements of the PN-EN 1401-1 standard.

LCA standard: EN15804+A2 (2019)
Standard database: Worldwide - Ecoinvent v 3.6 Cut-Off
Externally verified: Yes
Issue date: 08-06-2023
End of validity: 08-06-2028
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 - PL -Buk - Extra products (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												Benefits and loads beyond the system boundaries				
A4 Transport gate to site A5 Assembly / Construction installation process												D Reuse- Recovery- Recycling- potential				

Environmental impacts and parameters

GWP-total = EF EN15804+A2 Climate Change [kg CO2 eq]; **GWP-f** = EF Climate change - Fossil [kg CO2 eq]; **GWP-b** = EF EN15804+A2 Climate Change - Biogenic [kg CO2 eq]; **GWP-luluc** = EF EN15804+A2 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

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Results

Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	1.81E+0	2.20E-2	1.45E-4	1.83E+0	2.09E-2	7.16E-1	6.83E-3	-9.55E-1	1.62E+0
GWP-f	kg CO2 eq	1.79E+0	2.20E-2	1.46E-4	1.81E+0	2.09E-2	7.16E-1	6.83E-3	-9.48E-1	1.61E+0
GWP-b	kg CO2 eq	1.44E-2	1.34E-5	-1.54E-6	1.44E-2	1.27E-5	-5.56E-4	8.56E-6	-6.13E-3	7.77E-3
GWP-luluc	kg CO2 eq	1.54E-3	7.79E-6	1.49E-7	1.54E-3	7.40E-6	2.59E-4	1.77E-7	-5.74E-4	1.24E-3
ODP	kg CFC11 eq	9.03E-7	5.07E-9	8.26E-12	9.08E-7	4.82E-9	7.13E-8	2.52E-10	-4.50E-7	5.35E-7
AP	mol H+ eq	8.51E-3	1.25E-4	1.47E-6	8.63E-3	1.19E-4	1.21E-3	6.13E-6	-3.39E-3	6.57E-3
EP-fw	kg P eq	8.05E-5	1.81E-7	8.24E-9	8.06E-5	1.72E-7	8.66E-6	8.03E-9	-3.26E-5	5.69E-5
EP-m	kg N eq	1.44E-3	4.49E-5	1.55E-7	1.48E-3	4.26E-5	2.93E-4	4.07E-6	-5.94E-4	1.23E-3
EP-T	mol N eq	1.57E-2	4.94E-4	1.85E-6	1.62E-2	4.70E-4	3.24E-3	2.44E-5	-6.32E-3	1.36E-2
POCP	kg NMVOC eq	5.38E-3	1.41E-4	6.28E-7	5.52E-3	1.34E-4	9.64E-4	8.43E-6	-2.20E-3	4.43E-3
ADP-mm	kg Sb eq	1.52E-3	5.70E-7	1.97E-8	1.52E-3	5.41E-7	4.70E-6	6.14E-9	-1.90E-5	1.50E-3
ADP-f	MJ	4.47E+1	3.38E-1	1.36E-3	4.51E+1	3.21E-1	3.25E+0	1.84E-2	-2.26E+1	2.61E+1
WDP	m3 depriv.	2.78E+0	1.04E-3	5.22E-5	2.78E+0	9.85E-4	1.31E-1	1.18E-4	-1.27E+0	1.64E+0
PM	disease inc.	5.72E-8	1.99E-9	9.08E-12	5.92E-8	1.89E-9	1.47E-8	1.27E-10	-2.14E-8	5.46E-8
IR	kBq U-235 eq	9.89E-2	1.48E-3	1.02E-6	1.00E-1	1.40E-3	1.14E-2	8.47E-5	-4.15E-2	7.19E-2
ETP-fw	CTUe	4.38E+1	2.74E-1	1.21E-2	4.41E+1	2.61E-1	2.57E+1	2.85E-1	-1.23E+1	5.80E+1
HTP-c	CTUh	1.46E-9	9.77E-12	6.17E-13	1.47E-9	9.28E-12	3.66E-10	5.08E-13	-4.71E-10	1.38E-9
HTP-nc	CTUh	4.72E-8	3.27E-10	1.57E-11	4.75E-8	3.11E-10	8.90E-9	5.49E-11	-1.62E-8	4.06E-8
SQP	Pt	6.50E+0	2.89E-1	2.24E-3	6.79E+0	2.75E-1	1.99E+0	4.71E-2	-2.30E+0	6.80E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	6.24E+0	4.85E-3	2.40E-2	6.27E+0	4.61E-3	2.38E-1	6.92E-4	-9.27E-1	5.58E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	6.24E+0	4.85E-3	2.40E-2	6.27E+0	4.61E-3	2.38E-1	6.92E-4	-9.27E-1	5.58E+0
PENRE	MJ	4.80E+1	3.59E-1	1.44E-3	4.83E+1	3.41E-1	3.46E+0	1.95E-2	-2.44E+1	2.78E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	4.80E+1	3.59E-1	1.44E-3	4.83E+1	3.41E-1	3.46E+0	1.95E-2	-2.44E+1	2.78E+1
PET	MJ	5.42E+1	3.64E-1	2.55E-2	5.46E+1	3.45E-1	3.70E+0	2.02E-2	-2.53E+1	3.34E+1
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	3.21E-2	3.82E-5	1.46E-6	3.21E-2	3.63E-5	3.66E-3	2.26E-5	-1.34E-2	2.25E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	2.17E-4	8.64E-7	2.73E-13	2.18E-4	8.21E-7	5.30E-6	2.24E-8	-1.91E-5	2.05E-4
NHWD	kg	1.72E-1	2.09E-2	1.05E-6	1.93E-1	1.99E-2	1.22E-1	8.09E-2	-6.81E-2	3.47E-1
RWD	kg	8.90E-5	2.30E-6	1.10E-13	9.13E-5	2.18E-6	1.22E-5	1.20E-7	-3.68E-5	6.90E-5
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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