

Environmental Profile

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

Ecochain v3.5.80



Product: 3071449 - PVCU Branch 87° BR 500x315 SN4 FR
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	5.17E+1	6.80E-1	1.82E-1	5.26E+1	9.21E-1	5.49E+1	2.54E-1	-3.76E+1	7.11E+1
GWP-f	kg CO2 eq	7.49E+1	6.80E-1	1.83E-1	7.58E+1	9.20E-1	3.00E+1	2.54E-1	-3.99E+1	6.70E+1
GWP-b	kg CO2 eq	-2.32E+1	4.13E-4	-1.94E-3	-2.32E+1	5.58E-4	2.49E+1	3.25E-4	2.40E+0	4.04E+0
GWP-luluc	kg CO2 eq	7.94E-2	2.41E-4	1.87E-4	7.98E-2	3.26E-4	1.06E-2	6.92E-6	-4.85E-2	4.22E-2
ODP	kg CFC11 eq	3.49E-5	1.57E-7	1.04E-8	3.50E-5	2.12E-7	2.84E-6	1.05E-8	-1.72E-5	2.09E-5
AP	mol H+ eq	3.46E-1	3.87E-3	1.85E-3	3.51E-1	5.24E-3	5.21E-2	2.49E-4	-1.57E-1	2.52E-1
EP-fw	kg P eq	3.19E-3	5.59E-6	1.03E-5	3.20E-3	7.57E-6	3.52E-4	3.11E-7	-1.56E-3	2.01E-3
EP-m	kg N eq	6.30E-2	1.39E-3	1.95E-4	6.46E-2	1.87E-3	1.32E-2	1.60E-4	-3.01E-2	4.97E-2
EP-T	mol N eq	6.84E-1	1.53E-2	2.33E-3	7.02E-1	2.07E-2	1.46E-1	9.99E-4	-3.33E-1	5.36E-1
POCP	kg NMVOC eq	2.39E-1	4.36E-3	7.88E-4	2.45E-1	5.91E-3	4.36E-2	3.39E-4	-1.10E-1	1.84E-1
ADP-mm	kg Sb eq	2.94E-3	1.76E-5	2.47E-5	2.98E-3	2.38E-5	2.02E-4	2.47E-7	-7.60E-4	2.44E-3
ADP-f	MJ	1.85E+3	1.04E+1	1.70E+0	1.86E+3	1.41E+1	1.40E+2	7.57E-1	-9.18E+2	1.10E+3
WDP	m3 depriv.	1.06E+2	3.20E-2	6.55E-2	1.06E+2	4.33E-2	5.21E+0	4.23E-3	-5.17E+1	5.97E+1
PM	disease inc.	3.09E-6	6.14E-8	1.14E-8	3.17E-6	8.30E-8	6.58E-7	5.17E-9	-1.40E-6	2.51E-6
IR	kBq U-235 eq	3.93E+0	4.56E-2	1.28E-3	3.97E+0	6.17E-2	4.91E-1	3.47E-3	-1.82E+0	2.71E+0
ETP-fw	CTUe	1.58E+3	8.47E+0	1.52E+1	1.60E+3	1.15E+1	9.86E+2	1.07E+1	-7.56E+2	1.86E+3
HTP-c	CTUh	5.57E-8	3.02E-10	7.74E-10	5.68E-8	4.08E-10	1.62E-8	1.94E-11	-2.54E-8	4.80E-8
HTP-nc	CTUh	1.51E-6	1.01E-8	1.96E-8	1.54E-6	1.37E-8	3.63E-7	2.07E-9	-7.15E-7	1.20E-6
SQP	Pt	2.38E+3	8.93E+0	2.81E+0	2.39E+3	1.21E+1	8.87E+1	1.91E+0	-1.86E+3	6.28E+2
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	4.71E+2	1.50E-1	3.02E+1	5.01E+2	2.03E-1	9.70E+0	2.70E-2	-3.23E+2	1.88E+2
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	4.71E+2	1.50E-1	3.02E+1	5.01E+2	2.03E-1	9.70E+0	2.70E-2	-3.23E+2	1.88E+2
PENRE	MJ	1.99E+3	1.11E+1	1.81E+0	2.00E+3	1.50E+1	1.49E+2	8.03E-1	-9.90E+2	1.17E+3
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.99E+3	1.11E+1	1.81E+0	2.00E+3	1.50E+1	1.49E+2	8.03E-1	-9.90E+2	1.17E+3
PET	MJ	2.46E+3	1.12E+1	3.20E+1	2.50E+3	1.52E+1	1.59E+2	8.30E-1	-1.31E+3	1.36E+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	1.25E+0	1.18E-3	1.83E-3	1.26E+0	1.60E-3	1.47E-1	9.26E-4	-6.16E-1	7.91E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.53E-3	2.67E-5	3.43E-10	1.55E-3	3.61E-5	2.32E-4	9.10E-7	-8.57E-4	9.65E-4
NHWD	kg	7.99E+0	6.47E-1	1.32E-3	8.64E+0	8.75E-1	5.60E+0	3.55E+0	-3.44E+0	1.52E+1
RWD	kg	3.68E-3	7.10E-5	1.38E-10	3.75E-3	9.60E-5	5.38E-4	4.95E-6	-1.67E-3	2.72E-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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