

Environmental Profile

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

Ecochain v3.5.80



Product: 3017593 - PVCU Branch 87° BR 500 SN4 UD
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	1.07E+2	9.49E-1	1.33E-1	1.08E+2	1.61E+0	5.75E+1	4.48E-1	-6.17E+1	1.06E+2
GWP-f	kg CO2 eq	1.16E+2	9.48E-1	1.34E-1	1.17E+2	1.61E+0	4.69E+1	4.47E-1	-6.13E+1	1.05E+2
GWP-b	kg CO2 eq	-9.62E+0	5.76E-4	-1.41E-3	-9.62E+0	9.76E-4	1.05E+1	5.75E-4	-4.05E-1	4.88E-1
GWP-luluc	kg CO2 eq	9.29E-2	3.36E-4	1.37E-4	9.33E-2	5.69E-4	1.85E-2	1.21E-5	-3.93E-2	7.31E-2
ODP	kg CFC11 eq	6.06E-5	2.19E-7	7.56E-9	6.08E-5	3.71E-7	4.95E-6	1.83E-8	-2.95E-5	3.66E-5
AP	mol H+ eq	5.26E-1	5.40E-3	1.35E-3	5.33E-1	9.16E-3	8.76E-2	4.38E-4	-2.28E-1	4.03E-1
EP-fw	kg P eq	4.93E-3	7.80E-6	7.54E-6	4.95E-3	1.32E-5	6.15E-4	5.46E-7	-2.17E-3	3.41E-3
EP-m	kg N eq	8.94E-2	1.93E-3	1.42E-4	9.15E-2	3.28E-3	2.16E-2	2.80E-4	-4.03E-2	7.64E-2
EP-T	mol N eq	9.74E-1	2.13E-2	1.70E-3	9.97E-1	3.61E-2	2.38E-1	1.75E-3	-4.36E-1	8.38E-1
POCP	kg NMVOC eq	3.43E-1	6.09E-3	5.74E-4	3.49E-1	1.03E-2	7.14E-2	5.95E-4	-1.48E-1	2.84E-1
ADP-mm	kg Sb eq	4.67E-3	2.45E-5	1.80E-5	4.71E-3	4.16E-5	3.42E-4	4.33E-7	-1.24E-3	3.85E-3
ADP-f	MJ	2.95E+3	1.46E+1	1.24E+0	2.97E+3	2.47E+1	2.39E+2	1.33E+0	-1.47E+3	1.77E+3
WDP	m3 depriv.	1.81E+2	4.47E-2	4.78E-2	1.81E+2	7.58E-2	9.19E+0	7.25E-3	-8.40E+1	1.07E+2
PM	disease inc.	4.12E-6	8.56E-8	8.31E-9	4.21E-6	1.45E-7	1.10E-6	9.08E-9	-1.49E-6	3.97E-6
IR	kBq U-235 eq	6.29E+0	6.36E-2	9.32E-4	6.35E+0	1.08E-1	8.33E-1	6.09E-3	-2.74E+0	4.55E+0
ETP-fw	CTUe	2.00E+3	1.18E+1	1.11E+1	2.02E+3	2.00E+1	1.75E+3	1.92E+1	-8.63E+2	2.94E+3
HTP-c	CTUh	7.99E-8	4.21E-10	5.65E-10	8.09E-8	7.13E-10	2.67E-8	3.41E-11	-3.16E-8	7.67E-8
HTP-nc	CTUh	2.45E-6	1.41E-8	1.43E-8	2.48E-6	2.39E-8	6.26E-7	3.70E-9	-1.08E-6	2.05E-6
SQP	Pt	1.34E+3	1.25E+1	2.05E+0	1.36E+3	2.11E+1	1.51E+2	3.36E+0	-3.56E+2	1.18E+3
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	3.92E+2	2.09E-1	2.20E+1	4.14E+2	3.54E-1	1.70E+1	4.76E-2	-1.02E+2	3.29E+2
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	3.92E+2	2.09E-1	2.20E+1	4.14E+2	3.54E-1	1.70E+1	4.76E-2	-1.02E+2	3.29E+2
PENRE	MJ	3.17E+3	1.55E+1	1.32E+0	3.18E+3	2.62E+1	2.55E+2	1.41E+0	-1.58E+3	1.89E+3
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	3.17E+3	1.55E+1	1.32E+0	3.18E+3	2.62E+1	2.55E+2	1.41E+0	-1.58E+3	1.89E+3
PET	MJ	3.56E+3	1.57E+1	2.33E+1	3.60E+3	2.66E+1	2.72E+2	1.46E+0	-1.68E+3	2.21E+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	2.02E+0	1.65E-3	1.34E-3	2.02E+0	2.79E-3	2.56E-1	1.63E-3	-8.83E-1	1.40E+0

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	2.34E-3	3.72E-5	2.50E-10	2.38E-3	6.31E-5	3.89E-4	1.59E-6	-1.24E-3	1.60E-3
NHWD	kg	1.13E+1	9.02E-1	9.65E-4	1.22E+1	1.53E+0	9.23E+0	6.19E+0	-4.57E+0	2.46E+1
RWD	kg	5.77E-3	9.90E-5	1.00E-10	5.87E-3	1.68E-4	9.00E-4	8.68E-6	-2.44E-3	4.51E-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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