

Environmental Profile

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

Ecochain v3.5.80



Product: 3017491 - PVCU Plug BR 500 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	3.38E+1	3.10E-1	1.99E-1	3.43E+1	5.18E-1	1.62E+1	1.44E-1	-1.96E+1	3.16E+1
GWP-f	kg CO2 eq	3.63E+1	3.10E-1	2.01E-1	3.68E+1	5.18E-1	1.34E+1	1.44E-1	-1.95E+1	3.14E+1
GWP-b	kg CO2 eq	-2.52E+0	1.88E-4	-2.12E-3	-2.52E+0	3.14E-4	2.86E+0	1.86E-4	-1.36E-1	2.08E-1
GWP-luluc	kg CO2 eq	2.88E-2	1.10E-4	2.05E-4	2.92E-2	1.83E-4	6.14E-3	3.87E-6	-1.30E-2	2.25E-2
ODP	kg CFC11 eq	2.00E-5	7.15E-8	1.13E-8	2.01E-5	1.19E-7	1.65E-6	5.87E-9	-9.79E-6	1.21E-5
AP	mol H+ eq	1.62E-1	1.77E-3	2.02E-3	1.66E-1	2.95E-3	2.86E-2	1.40E-4	-7.50E-2	1.23E-1
EP-fw	kg P eq	1.57E-3	2.55E-6	1.13E-5	1.58E-3	4.26E-6	2.04E-4	1.75E-7	-7.23E-4	1.07E-3
EP-m	kg N eq	2.76E-2	6.32E-4	2.13E-4	2.84E-2	1.06E-3	6.98E-3	8.56E-5	-1.31E-2	2.34E-2
EP-T	mol N eq	2.98E-1	6.97E-3	2.54E-3	3.08E-1	1.16E-2	7.70E-2	5.62E-4	-1.42E-1	2.55E-1
POCP	kg NMVOC eq	1.03E-1	1.99E-3	8.61E-4	1.06E-1	3.32E-3	2.31E-2	1.91E-4	-4.81E-2	8.42E-2
ADP-mm	kg Sb eq	9.85E-4	8.02E-6	2.70E-5	1.02E-3	1.34E-5	1.13E-4	1.39E-7	-3.98E-4	7.48E-4
ADP-f	MJ	9.19E+2	4.76E+0	1.86E+0	9.26E+2	7.95E+0	7.85E+1	4.25E-1	-4.72E+2	5.41E+2
WDP	m3 depriv.	5.94E+1	1.46E-2	7.16E-2	5.95E+1	2.44E-2	3.05E+0	2.24E-3	-2.81E+1	3.45E+1
PM	disease inc.	1.20E-6	2.80E-8	1.25E-8	1.24E-6	4.67E-8	3.59E-7	2.91E-9	-4.89E-7	1.16E-6
IR	kBq U-235 eq	1.95E+0	2.08E-2	1.40E-3	1.97E+0	3.47E-2	2.74E-1	1.95E-3	-9.09E-1	1.37E+0
ETP-fw	CTUe	6.16E+2	3.87E+0	1.66E+1	6.37E+2	6.45E+0	5.85E+2	6.44E+0	-2.84E+2	9.51E+2
HTP-c	CTUh	2.50E-8	1.38E-10	8.46E-10	2.60E-8	2.30E-10	8.56E-9	1.09E-11	-1.05E-8	2.44E-8
HTP-nc	CTUh	7.90E-7	4.61E-9	2.15E-8	8.16E-7	7.69E-9	2.06E-7	1.23E-9	-3.61E-7	6.70E-7
SQP	Pt	3.76E+2	4.07E+0	3.07E+0	3.83E+2	6.80E+0	4.91E+1	1.08E+0	-1.06E+2	3.34E+2
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.13E+2	6.83E-2	3.30E+1	1.46E+2	1.14E-1	5.62E+0	1.54E-2	-3.16E+1	1.20E+2
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.13E+2	6.83E-2	3.30E+1	1.46E+2	1.14E-1	5.62E+0	1.54E-2	-3.16E+1	1.20E+2
PENRE	MJ	9.87E+2	5.05E+0	1.98E+0	9.94E+2	8.44E+0	8.35E+1	4.51E-1	-5.09E+2	5.77E+2
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	9.87E+2	5.05E+0	1.98E+0	9.94E+2	8.44E+0	8.35E+1	4.51E-1	-5.09E+2	5.77E+2
PET	MJ	1.10E+3	5.12E+0	3.49E+1	1.14E+3	8.55E+0	8.91E+1	4.67E-1	-5.40E+2	6.97E+2
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	6.34E-1	5.39E-4	2.00E-3	6.37E-1	8.99E-4	8.35E-2	5.22E-4	-2.94E-1	4.28E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	7.47E-4	1.22E-5	3.75E-10	7.59E-4	2.03E-5	1.26E-4	5.11E-7	-3.94E-4	5.13E-4
NHWD	kg	3.51E+0	2.95E-1	1.45E-3	3.81E+0	4.93E-1	2.93E+0	1.97E+0	-1.52E+0	7.69E+0
RWD	kg	1.73E-3	3.24E-5	1.50E-10	1.76E-3	5.40E-5	2.95E-4	2.78E-6	-8.03E-4	1.31E-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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