

Environmental Profile

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

Ecochain v3.5.80



Product: 3017561 - PVCU Double Coupler BR 400 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	1.61E+1	1.24E-1	1.18E-1	1.63E+1	2.36E-1	9.91E+0	6.86E-2	-9.16E+0	1.74E+1
GWP-f	kg CO2 eq	1.78E+1	1.24E-1	1.19E-1	1.81E+1	2.36E-1	8.03E+0	6.86E-2	-9.10E+0	1.73E+1
GWP-b	kg CO2 eq	-1.77E+0	7.55E-5	-1.26E-3	-1.77E+0	1.43E-4	1.87E+0	8.64E-5	-5.56E-2	4.38E-2
GWP-luluc	kg CO2 eq	1.44E-2	4.40E-5	1.22E-4	1.45E-2	8.35E-5	2.61E-3	1.83E-6	-5.57E-3	1.17E-2
ODP	kg CFC11 eq	8.76E-6	2.87E-8	6.75E-9	8.80E-6	5.44E-8	6.93E-7	2.76E-9	-4.17E-6	5.38E-6
AP	mol H+ eq	8.27E-2	7.08E-4	1.21E-3	8.46E-2	1.34E-3	1.26E-2	6.59E-5	-3.24E-2	6.62E-2
EP-fw	kg P eq	7.41E-4	1.02E-6	6.73E-6	7.49E-4	1.94E-6	8.66E-5	8.23E-8	-3.04E-4	5.34E-4
EP-m	kg N eq	1.40E-2	2.53E-4	1.27E-4	1.44E-2	4.81E-4	3.15E-3	4.73E-5	-5.81E-3	1.22E-2
EP-T	mol N eq	1.54E-1	2.79E-3	1.52E-3	1.58E-1	5.30E-3	3.47E-2	2.64E-4	-6.33E-2	1.35E-1
POCP	kg NMVOC eq	5.53E-2	7.99E-4	5.13E-4	5.66E-2	1.52E-3	1.04E-2	8.98E-5	-2.13E-2	4.72E-2
ADP-mm	kg Sb eq	1.25E-3	3.22E-6	1.61E-5	1.27E-3	6.10E-6	4.84E-5	6.51E-8	-1.92E-4	1.13E-3
ADP-f	MJ	4.54E+2	1.91E+0	1.11E+0	4.57E+2	3.62E+0	3.40E+1	2.00E-1	-2.14E+2	2.81E+2
WDP	m3 depriv.	2.61E+1	5.86E-3	4.26E-2	2.62E+1	1.11E-2	1.30E+0	1.09E-3	-1.17E+1	1.58E+1
PM	disease inc.	7.04E-7	1.12E-8	7.42E-9	7.23E-7	2.13E-8	1.57E-7	1.36E-9	-2.15E-7	6.88E-7
IR	kBq U-235 eq	1.01E+0	8.34E-3	8.32E-4	1.02E+0	1.58E-2	1.18E-1	9.19E-4	-3.89E-1	7.64E-1
ETP-fw	CTUe	3.15E+2	1.55E+0	9.88E+0	3.26E+2	2.94E+0	2.45E+2	2.68E+0	-1.23E+2	4.53E+2
HTP-c	CTUh	1.22E-8	5.52E-11	5.04E-10	1.28E-8	1.05E-10	3.81E-9	5.11E-12	-4.47E-9	1.23E-8
HTP-nc	CTUh	3.63E-7	1.85E-9	1.28E-8	3.78E-7	3.51E-9	8.88E-8	5.24E-10	-1.52E-7	3.19E-7
SQP	Pt	2.34E+2	1.63E+0	1.83E+0	2.37E+2	3.10E+0	2.15E+1	5.05E-1	-5.80E+1	2.04E+2
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	6.43E+1	2.74E-2	1.96E+1	8.40E+1	5.20E-2	2.39E+0	7.23E-3	-1.59E+1	7.05E+1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	6.43E+1	2.74E-2	1.96E+1	8.40E+1	5.20E-2	2.39E+0	7.23E-3	-1.59E+1	7.05E+1
PENRE	MJ	4.87E+2	2.03E+0	1.18E+0	4.90E+2	3.85E+0	3.62E+1	2.12E-1	-2.31E+2	3.00E+2
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	4.87E+2	2.03E+0	1.18E+0	4.90E+2	3.85E+0	3.62E+1	2.12E-1	-2.31E+2	3.00E+2
PET	MJ	5.51E+2	2.05E+0	2.08E+1	5.74E+2	3.90E+0	3.86E+1	2.19E-1	-2.47E+2	3.70E+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	3.06E-1	2.16E-4	1.19E-3	3.07E-1	4.10E-4	3.78E-2	2.45E-4	-1.24E-1	2.22E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	3.55E-4	4.88E-6	2.23E-10	3.60E-4	9.26E-6	5.62E-5	2.40E-7	-1.84E-4	2.41E-4
NHWD	kg	1.75E+0	1.18E-1	8.62E-4	1.87E+0	2.24E-1	1.35E+0	9.35E-1	-6.44E-1	3.73E+0
RWD	kg	9.83E-4	1.30E-5	8.96E-11	9.96E-4	2.46E-5	1.28E-4	1.31E-6	-3.49E-4	8.01E-4
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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