

Environmental Profile

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

Ecochain v3.5.80



Product: 3017583 - PVCU Branch 87° BR 400x315 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

This document and supporting material contain confidential and proprietary business information of Wavin - PL -Buk - Extra products. These materials may be printed or (photo) copied or otherwise used only with the written consent of Wavin - PL -Buk - Extra products.

Results

Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	4.07E+1	3.45E-1	1.58E-1	4.12E+1	6.26E-1	2.25E+1	1.73E-1	-2.37E+1	4.08E+1
GWP-f	kg CO2 eq	4.47E+1	3.44E-1	1.59E-1	4.52E+1	6.25E-1	1.81E+1	1.73E-1	-2.35E+1	4.06E+1
GWP-b	kg CO2 eq	-4.10E+0	2.09E-4	-1.68E-3	-4.11E+0	3.80E-4	4.45E+0	2.22E-4	-1.56E-1	1.88E-1
GWP-luluc	kg CO2 eq	3.59E-2	1.22E-4	1.63E-4	3.62E-2	2.21E-4	7.15E-3	4.72E-6	-1.52E-2	2.83E-2
ODP	kg CFC11 eq	2.33E-5	7.94E-8	8.99E-9	2.34E-5	1.44E-7	1.90E-6	7.12E-9	-1.14E-5	1.41E-5
AP	mol H+ eq	2.03E-1	1.96E-3	1.61E-3	2.07E-1	3.56E-3	3.38E-2	1.70E-4	-8.78E-2	1.57E-1
EP-fw	kg P eq	1.90E-3	2.83E-6	8.97E-6	1.91E-3	5.14E-6	2.37E-4	2.12E-7	-8.35E-4	1.32E-3
EP-m	kg N eq	3.45E-2	7.02E-4	1.69E-4	3.54E-2	1.27E-3	8.37E-3	1.09E-4	-1.55E-2	2.96E-2
EP-T	mol N eq	3.77E-1	7.74E-3	2.02E-3	3.87E-1	1.40E-2	9.22E-2	6.80E-4	-1.69E-1	3.25E-1
POCP	kg NMVOC eq	1.33E-1	2.21E-3	6.83E-4	1.36E-1	4.01E-3	2.76E-2	2.31E-4	-5.70E-2	1.10E-1
ADP-mm	kg Sb eq	1.86E-3	8.91E-6	2.14E-5	1.89E-3	1.62E-5	1.32E-4	1.68E-7	-4.80E-4	1.55E-3
ADP-f	MJ	1.14E+3	5.29E+0	1.48E+0	1.14E+3	9.59E+0	9.25E+1	5.15E-1	-5.63E+2	6.83E+2
WDP	m3 depriv.	6.95E+1	1.62E-2	5.68E-2	6.96E+1	2.94E-2	3.54E+0	2.89E-3	-3.23E+1	4.09E+1
PM	disease inc.	1.61E-6	3.11E-8	9.89E-9	1.65E-6	5.64E-8	4.26E-7	3.52E-9	-5.77E-7	1.56E-6
IR	kBq U-235 eq	2.43E+0	2.31E-2	1.11E-3	2.46E+0	4.19E-2	3.22E-1	2.36E-3	-1.06E+0	1.77E+0
ETP-fw	CTUe	7.74E+2	4.29E+0	1.32E+1	7.91E+2	7.79E+0	6.70E+2	7.34E+0	-3.34E+2	1.14E+3
HTP-c	CTUh	3.11E-8	1.53E-10	6.71E-10	3.19E-8	2.77E-10	1.04E-8	1.32E-11	-1.22E-8	3.04E-8
HTP-nc	CTUh	9.45E-7	5.12E-9	1.70E-8	9.67E-7	9.29E-9	2.41E-7	1.42E-9	-4.18E-7	8.01E-7
SQP	Pt	5.55E+2	4.52E+0	2.44E+0	5.62E+2	8.21E+0	5.84E+1	1.30E+0	-1.45E+2	4.85E+2
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.59E+2	7.59E-2	2.62E+1	1.85E+2	1.38E-1	6.53E+0	1.84E-2	-4.10E+1	1.51E+2
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.59E+2	7.59E-2	2.62E+1	1.85E+2	1.38E-1	6.53E+0	1.84E-2	-4.10E+1	1.51E+2
PENRE	MJ	1.22E+3	5.61E+0	1.57E+0	1.23E+3	1.02E+1	9.84E+1	5.46E-1	-6.07E+2	7.28E+2
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.22E+3	5.61E+0	1.57E+0	1.23E+3	1.02E+1	9.84E+1	5.46E-1	-6.07E+2	7.28E+2
PET	MJ	1.38E+3	5.69E+0	2.77E+1	1.41E+3	1.03E+1	1.05E+2	5.65E-1	-6.48E+2	8.79E+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	7.75E-1	5.98E-4	1.59E-3	7.77E-1	1.09E-3	9.88E-2	6.30E-4	-3.40E-1	5.37E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	9.11E-4	1.35E-5	2.97E-10	9.25E-4	2.45E-5	1.50E-4	6.19E-7	-4.76E-4	6.24E-4
NHWD	kg	4.37E+0	3.28E-1	1.15E-3	4.70E+0	5.95E-1	3.58E+0	2.41E+0	-1.76E+0	9.52E+0
RWD	kg	2.25E-3	3.60E-5	1.19E-10	2.29E-3	6.52E-5	3.48E-4	3.37E-6	-9.38E-4	1.76E-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



Ecochain Technologies BV
H.J.E. Wenckebachweg 123, 1096 AM Amsterdam, The Netherlands
<https://www.ecochain.com>
+31 20 3035 777