

Environmental Profile

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

Ecochain v3.5.80



Product: 3022144 - PVCU SemiReducer BR 250x160 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	6.58E+0	7.11E-2	2.54E-2	6.67E+0	9.03E-2	3.02E+0	2.70E-2	-3.70E+0	6.10E+0
GWP-f	kg CO2 eq	6.83E+0	7.11E-2	2.57E-2	6.92E+0	9.02E-2	2.70E+0	2.70E-2	-3.68E+0	6.07E+0
GWP-b	kg CO2 eq	-2.55E-1	4.31E-5	-2.71E-4	-2.56E-1	5.48E-5	3.11E-1	3.38E-5	-2.46E-2	3.13E-2
GWP-luluc	kg CO2 eq	5.64E-3	2.51E-5	2.63E-5	5.70E-3	3.19E-5	1.06E-3	7.38E-7	-2.33E-3	4.46E-3
ODP	kg CFC11 eq	3.59E-6	1.64E-8	1.45E-9	3.61E-6	2.08E-8	2.85E-7	1.05E-9	-1.79E-6	2.13E-6
AP	mol H+ eq	3.19E-2	4.05E-4	2.59E-4	3.26E-2	5.14E-4	4.98E-3	2.53E-5	-1.36E-2	2.45E-2
EP-fw	kg P eq	2.99E-4	5.85E-7	1.45E-6	3.01E-4	7.43E-7	3.53E-5	3.30E-8	-1.31E-4	2.06E-4
EP-m	kg N eq	5.39E-3	1.45E-4	2.73E-5	5.57E-3	1.84E-4	1.22E-3	1.57E-5	-2.39E-3	4.60E-3
EP-T	mol N eq	5.88E-2	1.60E-3	3.26E-4	6.07E-2	2.03E-3	1.35E-2	1.01E-4	-2.56E-2	5.07E-2
POCP	kg NMVOC eq	2.06E-2	4.56E-4	1.10E-4	2.11E-2	5.80E-4	4.04E-3	3.46E-5	-8.79E-3	1.70E-2
ADP-mm	kg Sb eq	3.21E-3	1.84E-6	3.46E-6	3.21E-3	2.33E-6	1.95E-5	2.54E-8	-7.38E-5	3.16E-3
ADP-f	MJ	1.75E+2	1.09E+0	2.38E-1	1.76E+2	1.39E+0	1.36E+1	7.63E-2	-8.83E+1	1.03E+2
WDP	m3 depriv.	1.07E+1	3.35E-3	9.17E-3	1.07E+1	4.25E-3	5.28E-1	5.44E-4	-5.09E+0	6.12E+0
PM	disease inc.	2.26E-7	6.41E-9	1.60E-9	2.34E-7	8.15E-9	6.22E-8	5.23E-10	-8.75E-8	2.18E-7
IR	kBq U-235 eq	3.85E-1	4.77E-3	1.79E-4	3.90E-1	6.06E-3	4.75E-2	3.49E-4	-1.65E-1	2.79E-1
ETP-fw	CTUe	1.46E+2	8.86E-1	2.12E+0	1.49E+2	1.13E+0	1.01E+2	1.11E+0	-5.06E+1	2.02E+2
HTP-c	CTUh	5.23E-9	3.15E-11	1.08E-10	5.37E-9	4.00E-11	1.58E-9	2.09E-12	-1.89E-9	5.10E-9
HTP-nc	CTUh	1.65E-7	1.06E-9	2.75E-9	1.69E-7	1.34E-9	3.62E-8	2.16E-10	-6.51E-8	1.41E-7
SQP	Pt	5.23E+1	9.33E-1	3.94E-1	5.36E+1	1.19E+0	8.51E+0	1.94E-1	-1.52E+1	4.82E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	2.53E+1	1.56E-2	4.22E+0	2.95E+1	1.99E-2	9.72E-1	2.74E-3	-4.93E+0	2.56E+1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	2.53E+1	1.56E-2	4.22E+0	2.95E+1	1.99E-2	9.72E-1	2.74E-3	-4.93E+0	2.56E+1
PENRE	MJ	1.87E+2	1.16E+0	2.54E-1	1.89E+2	1.47E+0	1.45E+1	8.09E-2	-9.51E+1	1.09E+2
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.87E+2	1.16E+0	2.54E-1	1.89E+2	1.47E+0	1.45E+1	8.09E-2	-9.51E+1	1.09E+2
PET	MJ	2.12E+2	1.17E+0	4.48E+0	2.18E+2	1.49E+0	1.55E+1	8.37E-2	-1.00E+2	1.35E+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	1.20E-1	1.23E-4	2.56E-4	1.21E-1	1.57E-4	1.46E-2	9.30E-5	-5.33E-2	8.23E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	5.19E-4	2.79E-6	4.80E-11	5.22E-4	3.54E-6	2.21E-5	9.30E-8	-7.43E-5	4.74E-4
NHWD	kg	6.52E-1	6.76E-2	1.85E-4	7.19E-1	8.59E-2	5.18E-1	3.46E-1	-2.74E-1	1.40E+0
RWD	kg	3.59E-4	7.42E-6	1.93E-11	3.67E-4	9.42E-6	5.11E-5	4.96E-7	-1.46E-4	2.81E-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



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