

Environmental Profile

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

Ecochain v3.5.80



Product: 3004168 - PVC RWA Reducer Sewer GY 125x80
Unit: 1 piece
Manufacturer: Wavin - NL - Hardenberg - Verified
Address: J.C. Kellerlaan 3
7772 SG Hardenberg
Netherlands

Wavin carries a complete PVC range of outdoor sewers. With PVC as a material, a smooth-walled, flexible and completely watertight piping system is obtained. Moreover, PVC is absolutely resistant to all substances that occur in domestic waste water. By working with a light material, large pipe lengths and plug connections, a very fast installation is guaranteed.

LCA standard: NMD Bepalingsmethode 1.1 (2022)
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 - NL - Hardenberg - Verified (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

ECI = Environmental Costs Indicator [euro]; **ADPE** = Abiotic depletion potential for non-fossil resources [kg Sb-eq]; **ADPF** = Abiotic depletion potential for fossil resources [kg Sb-eq]; **GWP** = Global warming potential [kg CO2-eq]; **ODP** = Depletion potential of the stratospheric ozone layer [kg CFC-11-eq]; **POCP** = Formation potential of tropospheric ozone photochemical oxidants [kg ethene-eq]; **AP** = Acidification potential of land and water [kg SO2-eq]; **EP** = Eutrophication potential [kg PO4 3--eq]; **HTP** = Human toxicity potential [kg 1,4-DB-eq]; **FAETP** = Freshwater aquatic ecotoxicity potential [kg 1,4-DB-eq]; **MAETP** = Marine aquatic ecotoxicity potential [kg 1,4-DB-eq]; **TETP** = Terrestrial ecotoxicity potential [kg 1,4-DB-eq]; **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 - NL - Hardenberg - Verified. These materials may be printed or (photo) copied or otherwise used only with the written consent of Wavin - NL - Hardenberg - Verified.

Results

Environmental impact SBK set 1	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
ECI	euro	0.03	0	0	0.03	0	0.01	0	-0.01	0.02
ADPE	kg Sb-eq	2.28E-4	8.07E-8	3.53E-7	2.29E-4	7.49E-8	6.84E-7	8.36E-10	-2.62E-6	2.27E-4
ADPF	kg Sb-eq	2.68E-3	2.32E-5	6.07E-5	2.77E-3	2.11E-5	2.36E-4	1.16E-6	-1.47E-3	1.55E-3
GWP	kg CO2-eq	2.25E-1	3.16E-3	1.15E-2	2.40E-1	2.87E-3	8.04E-2	7.88E-4	-1.27E-1	1.97E-1
ODP	kg CFC-11-eq	1.26E-7	5.60E-10	9.11E-10	1.28E-7	5.33E-10	9.88E-9	2.76E-11	-6.38E-8	7.45E-8
POCP	kg ethene-eq	1.29E-4	1.91E-6	5.01E-6	1.36E-4	1.72E-6	1.87E-5	2.05E-7	-6.60E-5	9.04E-5
AP	kg SO2-eq	9.03E-4	1.39E-5	4.95E-5	9.67E-4	1.24E-5	1.38E-4	6.24E-7	-4.36E-4	6.82E-4
EP	kg PO4 3--eq	1.17E-4	2.73E-6	6.37E-6	1.26E-4	2.47E-6	2.09E-5	2.46E-7	-5.98E-5	9.00E-5
HTP	kg 1,4-DB-eq	8.80E-2	1.33E-3	5.36E-3	9.47E-2	1.23E-3	3.58E-2	6.55E-5	-4.15E-2	9.03E-2
FAETP	kg 1,4-DB-eq	2.71E-3	3.88E-5	1.83E-4	2.93E-3	3.60E-5	5.46E-4	2.02E-5	-1.20E-3	2.34E-3
MAETP	kg 1,4-DB-eq	6.23E+0	1.40E-1	7.21E-1	7.09E+0	1.29E-1	1.89E+0	2.47E-2	-2.68E+0	6.44E+0
TETP	kg 1,4-DB-eq	6.55E-4	4.70E-6	3.98E-4	1.06E-3	4.35E-6	1.27E-4	2.20E-7	-4.00E-4	7.90E-4
Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	2.33E-1	3.19E-3	1.32E-2	2.49E-1	2.90E-3	8.65E-2	9.19E-4	-1.18E-1	2.22E-1
GWP-f	kg CO2 eq	2.31E-1	3.19E-3	1.01E-2	2.44E-1	2.90E-3	8.09E-2	9.19E-4	-1.29E-1	1.99E-1
GWP-b	kg CO2 eq	2.31E-3	1.47E-6	2.09E-3	4.40E-3	1.76E-6	5.53E-3	1.16E-6	1.20E-2	2.19E-2
GWP-luluc	kg CO2 eq	2.67E-4	1.17E-6	9.62E-4	1.23E-3	1.02E-6	3.66E-5	2.41E-8	-1.70E-4	1.10E-3
ODP	kg CFC11 eq	1.25E-7	7.03E-10	1.07E-9	1.27E-7	6.67E-10	1.02E-8	3.43E-11	-6.32E-8	7.42E-8
AP	mol H+ eq	1.10E-3	1.85E-5	6.18E-5	1.18E-3	1.65E-5	1.73E-4	8.34E-7	-5.28E-4	8.44E-4
EP-fw	kg P eq	1.12E-5	3.21E-8	1.78E-7	1.14E-5	2.38E-8	1.23E-6	1.09E-9	-5.68E-6	6.98E-6
EP-m	kg N eq	1.99E-4	6.51E-6	1.46E-5	2.20E-4	5.90E-6	4.23E-5	5.17E-7	-9.46E-5	1.74E-4
EP-T	mol N eq	2.14E-3	7.18E-5	1.61E-4	2.37E-3	6.50E-5	4.66E-4	3.33E-6	-1.02E-3	1.88E-3
POCP	kg NMVOC eq	6.81E-4	2.05E-5	4.58E-5	7.47E-4	1.86E-5	1.39E-4	1.14E-6	-3.38E-4	5.69E-4
ADP-mm	kg Sb eq	2.28E-4	8.07E-8	3.53E-7	2.28E-4	7.49E-8	6.84E-7	8.36E-10	-2.62E-6	2.27E-4
ADP-f	MJ	5.72E+0	4.80E-2	1.13E-1	5.88E+0	4.44E-2	4.66E-1	2.50E-3	-3.10E+0	3.29E+0
WDP	m3 depriv.	3.78E-1	1.72E-4	8.77E-2	4.66E-1	1.36E-4	1.84E-2	1.62E-5	-1.97E-1	2.88E-1
PM	disease inc.	7.50E-9	2.86E-10	7.63E-10	8.55E-9	2.61E-10	2.14E-9	1.72E-11	-4.17E-9	6.80E-9
IR	kBq U-235 eq	1.31E-2	2.01E-4	1.80E-4	1.35E-2	1.94E-4	1.65E-3	1.15E-5	-6.54E-3	8.80E-3
ETP-fw	CTUe	7.21E+0	4.28E-2	2.63E-1	7.51E+0	3.61E-2	3.62E+0	4.00E-2	-2.69E+0	8.53E+0
HTP-c	CTUh	1.91E-10	1.39E-12	9.11E-12	2.01E-10	1.28E-12	5.18E-11	6.92E-14	-7.28E-11	1.82E-10
HTP-nc	CTUh	6.30E-9	4.69E-11	2.84E-10	6.63E-9	4.30E-11	1.25E-9	7.67E-12	-2.52E-9	5.42E-9
SQP	Pt	1.26E+0	4.17E-2	8.47E-3	1.31E+0	3.80E-2	2.84E-1	6.42E-3	-2.62E+0	-9.85E-1

Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	3.91E-1	6.02E-4	5.51E-1	9.43E-1	6.38E-4	3.37E-2	9.35E-5	-5.47E-1	4.30E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	3.91E-1	6.02E-4	5.51E-1	9.43E-1	6.38E-4	3.37E-2	9.35E-5	-5.47E-1	4.30E-1
PENRE	MJ	6.13E+0	5.10E-2	1.22E-1	6.30E+0	4.72E-2	4.95E-1	2.66E-3	-3.34E+0	3.51E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	6.13E+0	5.10E-2	1.22E-1	6.30E+0	4.72E-2	4.95E-1	2.66E-3	-3.34E+0	3.51E+0
PET	MJ	6.52E+0	5.16E-2	6.73E-1	7.25E+0	4.78E-2	5.29E-1	2.75E-3	-3.89E+0	3.94E+0
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	4.25E-3	5.85E-6	2.07E-3	6.33E-3	5.03E-6	5.05E-4	3.07E-6	-2.34E-3	4.50E-3
Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	3.28E-5	1.22E-7	1.20E-7	3.31E-5	1.14E-7	7.63E-7	3.05E-9	-2.64E-6	3.13E-5
NHWD	kg	2.41E-2	3.05E-3	1.86E-4	2.74E-2	2.75E-3	1.68E-2	1.10E-2	-1.05E-2	4.74E-2
RWD	kg	1.14E-5	3.16E-7	2.23E-7	1.19E-5	3.02E-7	1.77E-6	1.63E-8	-5.82E-6	8.20E-6
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