

Environmental Profile

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

Ecochain v3.5.80



Product: 3004234 - PVC RWA Reservoir WT 80
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]

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Results

Environmental impact SBK set 1	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
ECI	euro	0.13	0	0.01	0.14	0	0.04	0	-0.06	0.12
ADPE	kg Sb-eq	1.55E-3	3.95E-7	1.83E-6	1.55E-3	3.88E-7	3.42E-6	4.41E-9	-1.34E-5	1.54E-3
ADPF	kg Sb-eq	1.40E-2	1.14E-4	3.15E-4	1.44E-2	1.09E-4	1.19E-3	6.03E-6	-7.48E-3	8.21E-3
GWP	kg CO2-eq	1.20E+0	1.55E-2	5.97E-2	1.28E+0	1.49E-2	4.13E-1	4.15E-3	-6.37E-1	1.08E+0
ODP	kg CFC-11-eq	6.18E-7	2.74E-9	4.72E-9	6.25E-7	2.76E-9	4.94E-8	1.43E-10	-3.28E-7	3.49E-7
POCP	kg ethene-eq	7.38E-4	9.32E-6	2.60E-5	7.73E-4	8.93E-6	9.35E-5	1.07E-6	-3.29E-4	5.48E-4
AP	kg SO2-eq	5.04E-3	6.79E-5	2.57E-4	5.36E-3	6.41E-5	6.90E-4	3.25E-6	-2.14E-3	3.98E-3
EP	kg PO4 3--eq	6.24E-4	1.33E-5	3.30E-5	6.70E-4	1.28E-5	1.05E-4	1.26E-6	-2.76E-4	5.12E-4
HTP	kg 1,4-DB-eq	4.55E-1	6.51E-3	2.78E-2	4.90E-1	6.37E-3	1.82E-1	3.39E-4	-2.06E-1	4.73E-1
FAETP	kg 1,4-DB-eq	1.38E-2	1.90E-4	9.48E-4	1.50E-2	1.86E-4	2.76E-3	1.06E-4	-5.29E-3	1.27E-2
MAETP	kg 1,4-DB-eq	3.28E+1	6.83E-1	3.73E+0	3.72E+1	6.66E-1	9.40E+0	1.30E-1	-1.33E+1	3.41E+1
TETP	kg 1,4-DB-eq	3.21E-3	2.30E-5	2.06E-3	5.30E-3	2.26E-5	6.51E-4	1.14E-6	-1.77E-3	4.20E-3
Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	1.25E+0	1.56E-2	6.84E-2	1.33E+0	1.50E-2	4.31E-1	4.83E-3	-6.21E-1	1.16E+0
GWP-f	kg CO2 eq	1.23E+0	1.56E-2	5.25E-2	1.30E+0	1.50E-2	4.16E-1	4.83E-3	-6.51E-1	1.09E+0
GWP-b	kg CO2 eq	1.19E-2	7.19E-6	1.08E-2	2.27E-2	9.11E-6	1.48E-2	5.98E-6	3.04E-2	6.80E-2
GWP-luluc	kg CO2 eq	1.23E-3	5.71E-6	4.99E-3	6.22E-3	5.31E-6	1.85E-4	1.30E-7	-6.58E-4	5.75E-3
ODP	kg CFC11 eq	6.09E-7	3.44E-9	5.55E-9	6.18E-7	3.46E-9	5.09E-8	1.78E-10	-3.25E-7	3.48E-7
AP	mol H+ eq	6.10E-3	9.04E-5	3.20E-4	6.51E-3	8.55E-5	8.65E-4	4.35E-6	-2.58E-3	4.88E-3
EP-fw	kg P eq	5.86E-5	1.57E-7	9.20E-7	5.97E-5	1.23E-7	6.20E-6	5.82E-9	-2.67E-5	3.94E-5
EP-m	kg N eq	1.08E-3	3.18E-5	7.56E-5	1.18E-3	3.06E-5	2.11E-4	2.65E-6	-4.56E-4	9.71E-4
EP-T	mol N eq	1.14E-2	3.51E-4	8.34E-4	1.26E-2	3.37E-4	2.32E-3	1.73E-5	-4.88E-3	1.04E-2
POCP	kg NMVOC eq	3.77E-3	1.00E-4	2.37E-4	4.11E-3	9.63E-5	6.95E-4	5.97E-6	-1.65E-3	3.25E-3
ADP-mm	kg Sb eq	1.55E-3	3.95E-7	1.83E-6	1.55E-3	3.88E-7	3.42E-6	4.41E-9	-1.34E-5	1.54E-3
ADP-f	MJ	2.97E+1	2.35E-1	5.87E-1	3.05E+1	2.30E-1	2.35E+0	1.30E-2	-1.58E+1	1.73E+1
WDP	m3 depriv.	1.89E+0	8.41E-4	4.54E-1	2.34E+0	7.07E-4	9.29E-2	1.02E-4	-9.75E-1	1.46E+0
PM	disease inc.	4.07E-8	1.40E-9	3.95E-9	4.61E-8	1.35E-9	1.07E-8	8.97E-11	-1.86E-8	3.96E-8
IR	kBq U-235 eq	6.52E-2	9.85E-4	9.33E-4	6.71E-2	1.01E-3	8.29E-3	5.95E-5	-3.19E-2	4.46E-2
ETP-fw	CTUe	3.65E+1	2.10E-1	1.36E+0	3.81E+1	1.87E-1	1.81E+1	2.01E-1	-1.15E+1	4.51E+1
HTP-c	CTUh	1.05E-9	6.80E-12	4.72E-11	1.11E-9	6.66E-12	2.73E-10	3.72E-13	-3.59E-10	1.03E-9
HTP-nc	CTUh	3.38E-8	2.29E-10	1.47E-9	3.55E-8	2.23E-10	6.34E-9	3.87E-11	-1.24E-8	2.97E-8
SQP	Pt	5.26E+0	2.04E-1	4.39E-2	5.51E+0	1.97E-1	1.45E+0	3.33E-2	-7.90E+0	-7.19E-1

Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.74E+0	2.94E-3	2.85E+0	4.60E+0	3.30E-3	1.70E-1	4.76E-4	-1.81E+0	2.97E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.74E+0	2.94E-3	2.85E+0	4.60E+0	3.30E-3	1.70E-1	4.76E-4	-1.81E+0	2.97E+0
PENRE	MJ	3.18E+1	2.50E-1	6.35E-1	3.27E+1	2.45E-1	2.50E+0	1.38E-2	-1.70E+1	1.85E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	3.18E+1	2.50E-1	6.35E-1	3.27E+1	2.45E-1	2.50E+0	1.38E-2	-1.70E+1	1.85E+1
PET	MJ	3.36E+1	2.52E-1	3.49E+0	3.73E+1	2.48E-1	2.67E+0	1.43E-2	-1.88E+1	2.15E+1
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	2.18E-2	2.86E-5	1.07E-2	3.26E-2	2.61E-5	2.54E-3	1.59E-5	-1.09E-2	2.42E-2
Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	2.15E-4	5.96E-7	6.24E-7	2.16E-4	5.89E-7	3.84E-6	1.60E-8	-1.32E-5	2.07E-4
NHWD	kg	1.20E-1	1.49E-2	9.63E-4	1.36E-1	1.43E-2	8.54E-2	5.71E-2	-5.20E-2	2.41E-1
RWD	kg	5.63E-5	1.54E-6	1.16E-6	5.90E-5	1.57E-6	8.88E-6	8.44E-8	-2.83E-5	4.13E-5
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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