

Environmental Profile

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

Ecochain v3.5.80



Product: 3004172 - PVC RWA Reducer Long GY 80x75
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	0.01	0	0	0.01	0	0	0	-0.01	0.01
ADPE	kg Sb-eq	1.12E-4	3.94E-8	1.74E-7	1.12E-4	3.68E-8	3.35E-7	4.11E-10	-1.28E-6	1.11E-4
ADPF	kg Sb-eq	1.32E-3	1.13E-5	2.98E-5	1.36E-3	1.04E-5	1.15E-4	5.69E-7	-7.21E-4	7.62E-4
GWP	kg CO2-eq	1.10E-1	1.54E-3	5.66E-3	1.18E-1	1.41E-3	3.95E-2	3.87E-4	-6.20E-2	9.69E-2
ODP	kg CFC-11-eq	6.20E-8	2.74E-10	4.47E-10	6.27E-8	2.61E-10	4.84E-9	1.36E-11	-3.13E-8	3.66E-8
POCP	kg ethene-eq	6.32E-5	9.31E-7	2.46E-6	6.66E-5	8.46E-7	9.14E-6	1.00E-7	-3.22E-5	4.45E-5
AP	kg SO2-eq	4.42E-4	6.78E-6	2.43E-5	4.73E-4	6.07E-6	6.74E-5	3.06E-7	-2.12E-4	3.35E-4
EP	kg PO4 3--eq	5.71E-5	1.33E-6	3.13E-6	6.15E-5	1.21E-6	1.02E-5	1.21E-7	-2.89E-5	4.42E-5
HTP	kg 1,4-DB-eq	4.31E-2	6.49E-4	2.63E-3	4.64E-2	6.03E-4	1.75E-2	3.21E-5	-2.02E-2	4.43E-2
FAETP	kg 1,4-DB-eq	1.31E-3	1.90E-5	8.98E-5	1.42E-3	1.77E-5	2.68E-4	9.90E-6	-5.73E-4	1.14E-3
MAETP	kg 1,4-DB-eq	3.05E+0	6.82E-2	3.54E-1	3.47E+0	6.31E-2	9.24E-1	1.21E-2	-1.31E+0	3.16E+0
TETP	kg 1,4-DB-eq	3.20E-4	2.30E-6	1.95E-4	5.18E-4	2.14E-6	6.24E-5	1.08E-7	-1.92E-4	3.91E-4
Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	1.14E-1	1.56E-3	6.48E-3	1.22E-1	1.42E-3	4.23E-2	4.51E-4	-5.80E-2	1.08E-1
GWP-f	kg CO2 eq	1.13E-1	1.56E-3	4.98E-3	1.19E-1	1.42E-3	3.98E-2	4.51E-4	-6.34E-2	9.77E-2
GWP-b	kg CO2 eq	1.12E-3	7.18E-7	1.03E-3	2.15E-3	8.63E-7	2.50E-3	5.70E-7	5.40E-3	1.01E-2
GWP-luluc	kg CO2 eq	1.29E-4	5.70E-7	4.72E-4	6.02E-4	5.03E-7	1.80E-5	1.18E-8	-7.99E-5	5.40E-4
ODP	kg CFC11 eq	6.12E-8	3.43E-10	5.26E-10	6.21E-8	3.28E-10	4.99E-9	1.68E-11	-3.10E-8	3.64E-8
AP	mol H+ eq	5.39E-4	9.02E-6	3.03E-5	5.78E-4	8.10E-6	8.46E-5	4.10E-7	-2.57E-4	4.14E-4
EP-fw	kg P eq	5.47E-6	1.57E-8	8.72E-8	5.57E-6	1.17E-8	6.02E-7	5.36E-10	-2.74E-6	3.44E-6
EP-m	kg N eq	9.68E-5	3.18E-6	7.17E-6	1.07E-4	2.90E-6	2.07E-5	2.54E-7	-4.60E-5	8.50E-5
EP-T	mol N eq	1.04E-3	3.50E-5	7.90E-5	1.16E-3	3.19E-5	2.28E-4	1.63E-6	-4.94E-4	9.23E-4
POCP	kg NMVOC eq	3.33E-4	1.00E-5	2.25E-5	3.66E-4	9.13E-6	6.82E-5	5.62E-7	-1.64E-4	2.79E-4
ADP-mm	kg Sb eq	1.12E-4	3.94E-8	1.73E-7	1.12E-4	3.68E-8	3.35E-7	4.11E-10	-1.28E-6	1.11E-4
ADP-f	MJ	2.80E+0	2.35E-2	5.56E-2	2.88E+0	2.18E-2	2.28E-1	1.23E-3	-1.52E+0	1.61E+0
WDP	m3 depriv.	1.86E-1	8.39E-5	4.30E-2	2.29E-1	6.70E-5	9.05E-3	7.97E-6	-9.60E-2	1.42E-1
PM	disease inc.	3.65E-9	1.40E-10	3.75E-10	4.16E-9	1.28E-10	1.05E-9	8.47E-12	-2.00E-9	3.35E-9
IR	kBq U-235 eq	6.42E-3	9.83E-5	8.84E-5	6.60E-3	9.54E-5	8.09E-4	5.65E-6	-3.18E-3	4.33E-3
ETP-fw	CTUe	3.48E+0	2.09E-2	1.29E-1	3.63E+0	1.77E-2	1.78E+0	1.96E-2	-1.28E+0	4.16E+0
HTP-c	CTUh	9.34E-11	6.78E-13	4.47E-12	9.86E-11	6.30E-13	2.54E-11	3.40E-14	-3.55E-11	8.91E-11
HTP-nc	CTUh	3.09E-9	2.29E-11	1.40E-10	3.25E-9	2.11E-11	6.15E-10	3.76E-12	-1.23E-9	2.66E-9
SQP	Pt	5.98E-1	2.04E-2	4.16E-3	6.23E-1	1.87E-2	1.39E-1	3.15E-3	-1.20E+0	-4.15E-1

Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.88E-1	2.94E-4	2.70E-1	4.59E-1	3.13E-4	1.65E-2	4.59E-5	-2.53E-1	2.23E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.88E-1	2.94E-4	2.70E-1	4.59E-1	3.13E-4	1.65E-2	4.59E-5	-2.53E-1	2.23E-1
PENRE	MJ	3.01E+0	2.49E-2	6.01E-2	3.09E+0	2.32E-2	2.43E-1	1.30E-3	-1.64E+0	1.72E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	3.01E+0	2.49E-2	6.01E-2	3.09E+0	2.32E-2	2.43E-1	1.30E-3	-1.64E+0	1.72E+0
PET	MJ	3.19E+0	2.52E-2	3.31E-1	3.55E+0	2.35E-2	2.59E-1	1.35E-3	-1.89E+0	1.95E+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	2.08E-3	2.86E-6	1.02E-3	3.10E-3	2.47E-6	2.48E-4	1.51E-6	-1.13E-3	2.23E-3
Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.61E-5	5.94E-8	5.91E-8	1.62E-5	5.58E-8	3.73E-7	1.50E-9	-1.29E-6	1.54E-5
NHWD	kg	1.18E-2	1.49E-3	9.12E-5	1.34E-2	1.35E-3	8.23E-3	5.41E-3	-5.12E-3	2.32E-2
RWD	kg	5.58E-6	1.54E-7	1.09E-7	5.84E-6	1.48E-7	8.66E-7	8.00E-9	-2.83E-6	4.03E-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