

Environmental Profile

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

Ecochain v3.5.80



Product: 3004171 - PVC RWA Reducer Sewer GY 75x70
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	0.01
ADPE	kg Sb-eq	7.26E-5	2.59E-8	1.12E-7	7.27E-5	2.38E-8	2.18E-7	2.66E-10	-8.35E-7	7.21E-5
ADPF	kg Sb-eq	8.57E-4	7.44E-6	1.92E-5	8.84E-4	6.71E-6	7.51E-5	3.69E-7	-4.70E-4	4.96E-4
GWP	kg CO2-eq	7.21E-2	1.01E-3	3.65E-3	7.68E-2	9.14E-4	2.57E-2	2.51E-4	-4.06E-2	6.31E-2
ODP	kg CFC-11-eq	4.03E-8	1.80E-10	2.88E-10	4.07E-8	1.69E-10	3.15E-9	8.79E-12	-2.03E-8	2.37E-8
POCP	kg ethene-eq	4.13E-5	6.11E-7	1.58E-6	4.35E-5	5.48E-7	5.97E-6	6.51E-8	-2.12E-5	2.89E-5
AP	kg SO2-eq	2.89E-4	4.45E-6	1.57E-5	3.09E-4	3.93E-6	4.39E-5	1.98E-7	-1.40E-4	2.17E-4
EP	kg PO4 3--eq	3.77E-5	8.74E-7	2.02E-6	4.05E-5	7.85E-7	6.68E-6	7.82E-8	-1.94E-5	2.87E-5
HTP	kg 1,4-DB-eq	2.81E-2	4.26E-4	1.69E-3	3.02E-2	3.91E-4	1.14E-2	2.08E-5	-1.33E-2	2.88E-2
FAETP	kg 1,4-DB-eq	8.74E-4	1.24E-5	5.79E-5	9.45E-4	1.15E-5	1.75E-4	6.42E-6	-3.90E-4	7.48E-4
MAETP	kg 1,4-DB-eq	1.99E+0	4.47E-2	2.28E-1	2.26E+0	4.09E-2	6.05E-1	7.85E-3	-8.60E-1	2.06E+0
TETP	kg 1,4-DB-eq	2.10E-4	1.51E-6	1.26E-4	3.37E-4	1.39E-6	4.05E-5	7.01E-8	-1.30E-4	2.49E-4
Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	7.46E-2	1.02E-3	4.17E-3	7.98E-2	9.22E-4	2.78E-2	2.92E-4	-3.73E-2	7.14E-2
GWP-f	kg CO2 eq	7.38E-2	1.02E-3	3.21E-3	7.80E-2	9.21E-4	2.59E-2	2.92E-4	-4.14E-2	6.36E-2
GWP-b	kg CO2 eq	7.35E-4	4.71E-7	6.62E-4	1.40E-3	5.59E-7	1.90E-3	3.70E-7	4.14E-3	7.43E-3
GWP-luluc	kg CO2 eq	8.70E-5	3.74E-7	3.04E-4	3.92E-4	3.26E-7	1.17E-5	7.68E-9	-5.62E-5	3.48E-4
ODP	kg CFC11 eq	3.97E-8	2.25E-10	3.39E-10	4.03E-8	2.12E-10	3.24E-9	1.09E-11	-2.01E-8	2.36E-8
AP	mol H+ eq	3.52E-4	5.92E-6	1.96E-5	3.78E-4	5.25E-6	5.51E-5	2.65E-7	-1.69E-4	2.69E-4
EP-fw	kg P eq	3.59E-6	1.03E-8	5.62E-8	3.65E-6	7.58E-9	3.91E-7	3.47E-10	-1.83E-6	2.22E-6
EP-m	kg N eq	6.38E-5	2.09E-6	4.62E-6	7.06E-5	1.88E-6	1.35E-5	1.65E-7	-3.05E-5	5.56E-5
EP-T	mol N eq	6.86E-4	2.30E-5	5.09E-5	7.60E-4	2.07E-5	1.49E-4	1.06E-6	-3.28E-4	6.02E-4
POCP	kg NMVOC eq	2.18E-4	6.57E-6	1.45E-5	2.39E-4	5.92E-6	4.46E-5	3.64E-7	-1.08E-4	1.82E-4
ADP-mm	kg Sb eq	7.26E-5	2.59E-8	1.12E-7	7.27E-5	2.38E-8	2.18E-7	2.66E-10	-8.35E-7	7.21E-5
ADP-f	MJ	1.83E+0	1.54E-2	3.58E-2	1.88E+0	1.41E-2	1.48E-1	7.97E-4	-9.92E-1	1.05E+0
WDP	m3 depriv.	1.21E-1	5.51E-5	2.77E-2	1.48E-1	4.34E-5	5.87E-3	5.16E-6	-6.31E-2	9.11E-2
PM	disease inc.	2.42E-9	9.17E-11	2.41E-10	2.75E-9	8.32E-11	6.82E-10	5.49E-12	-1.36E-9	2.16E-9
IR	kBq U-235 eq	4.19E-3	6.45E-5	5.70E-5	4.31E-3	6.18E-5	5.27E-4	3.66E-6	-2.10E-3	2.80E-3
ETP-fw	CTUe	2.33E+0	1.37E-2	8.33E-2	2.43E+0	1.15E-2	1.15E+0	1.27E-2	-8.79E-1	2.73E+0
HTP-c	CTUh	6.09E-11	4.45E-13	2.88E-12	6.42E-11	4.09E-13	1.65E-11	2.20E-14	-2.34E-11	5.78E-11
HTP-nc	CTUh	2.01E-9	1.50E-11	9.00E-11	2.11E-9	1.37E-11	4.00E-10	2.44E-12	-8.08E-10	1.72E-9
SQP	Pt	4.13E-1	1.34E-2	2.68E-3	4.29E-1	1.21E-2	9.05E-2	2.04E-3	-8.91E-1	-3.57E-1

Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.27E-1	1.93E-4	1.74E-1	3.02E-1	2.03E-4	1.07E-2	2.98E-5	-1.85E-1	1.28E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.27E-1	1.93E-4	1.74E-1	3.02E-1	2.03E-4	1.07E-2	2.98E-5	-1.85E-1	1.28E-1
PENRE	MJ	1.96E+0	1.63E-2	3.88E-2	2.01E+0	1.50E-2	1.58E-1	8.46E-4	-1.07E+0	1.12E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.96E+0	1.63E-2	3.88E-2	2.01E+0	1.50E-2	1.58E-1	8.46E-4	-1.07E+0	1.12E+0
PET	MJ	2.09E+0	1.65E-2	2.13E-1	2.32E+0	1.52E-2	1.69E-1	8.75E-4	-1.25E+0	1.25E+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	1.36E-3	1.87E-6	6.56E-4	2.02E-3	1.60E-6	1.61E-4	9.76E-7	-7.57E-4	1.42E-3
Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.04E-5	3.90E-8	3.81E-8	1.05E-5	3.62E-8	2.44E-7	9.71E-10	-8.44E-7	9.96E-6
NHWD	kg	7.74E-3	9.76E-4	5.88E-5	8.78E-3	8.77E-4	5.36E-3	3.50E-3	-3.37E-3	1.51E-2
RWD	kg	3.64E-6	1.01E-7	7.06E-8	3.82E-6	9.62E-8	5.65E-7	5.18E-9	-1.87E-6	2.61E-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



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