

Environmental Profile

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

Ecochain v3.5.80



Product: 3002049 - PVC Cover for 315 Chamber BR
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	0.33	0	0.02	0.36	0	0.11	0	-0.17	0.31
ADPE	kg Sb-eq	3.14E-3	1.02E-6	4.87E-6	3.15E-3	1.03E-6	9.06E-6	1.15E-8	-3.49E-5	3.12E-3
ADPF	kg Sb-eq	3.58E-2	2.95E-4	8.37E-4	3.69E-2	2.91E-4	3.17E-3	1.60E-5	-1.96E-2	2.08E-2
GWP	kg CO2-eq	2.94E+0	4.01E-2	1.59E-1	3.14E+0	3.96E-2	1.09E+0	1.09E-2	-1.65E+0	2.63E+0
ODP	kg CFC-11-eq	1.72E-6	7.12E-9	1.26E-8	1.74E-6	7.34E-9	1.34E-7	3.81E-10	-8.67E-7	1.02E-6
POCP	kg ethene-eq	1.70E-3	2.42E-5	6.90E-5	1.79E-3	2.38E-5	2.44E-4	2.82E-6	-8.36E-4	1.23E-3
AP	kg SO2-eq	1.18E-2	1.76E-4	6.83E-4	1.27E-2	1.70E-4	1.83E-3	8.59E-6	-5.35E-3	9.35E-3
EP	kg PO4 3--eq	1.43E-3	3.46E-5	8.78E-5	1.55E-3	3.40E-5	2.75E-4	3.39E-6	-6.38E-4	1.23E-3
HTP	kg 1,4-DB-eq	1.16E+0	1.69E-2	7.38E-2	1.25E+0	1.69E-2	4.81E-1	9.03E-4	-5.22E-1	1.23E+0
FAETP	kg 1,4-DB-eq	3.09E-2	4.93E-4	2.52E-3	3.39E-2	4.96E-4	7.22E-3	2.78E-4	-1.14E-2	3.04E-2
MAETP	kg 1,4-DB-eq	8.14E+1	1.77E+0	9.93E+0	9.31E+1	1.77E+0	2.43E+1	3.40E-1	-3.37E+1	8.58E+1
TETP	kg 1,4-DB-eq	8.34E-3	5.97E-5	5.49E-3	1.39E-2	6.00E-5	1.73E-3	3.04E-6	-3.81E-3	1.19E-2
Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	3.05E+0	4.05E-2	1.82E-1	3.27E+0	3.99E-2	1.10E+0	1.27E-2	-1.70E+0	2.72E+0
GWP-f	kg CO2 eq	3.01E+0	4.05E-2	1.40E-1	3.19E+0	3.99E-2	1.10E+0	1.27E-2	-1.69E+0	2.66E+0
GWP-b	kg CO2 eq	2.93E-2	1.87E-5	2.88E-2	5.81E-2	2.42E-5	-1.09E-3	1.60E-5	-1.19E-2	4.51E-2
GWP-luluc	kg CO2 eq	2.69E-3	1.48E-5	1.33E-2	1.60E-2	1.41E-5	5.00E-4	3.33E-7	-1.10E-3	1.54E-2
ODP	kg CFC11 eq	1.70E-6	8.93E-9	1.48E-8	1.72E-6	9.20E-9	1.38E-7	4.73E-10	-8.57E-7	1.01E-6
AP	mol H+ eq	1.43E-2	2.35E-4	8.52E-4	1.54E-2	2.27E-4	2.29E-3	1.15E-5	-6.44E-3	1.15E-2
EP-fw	kg P eq	1.43E-4	4.08E-7	2.45E-6	1.46E-4	3.28E-7	1.67E-5	1.51E-8	-6.29E-5	1.00E-4
EP-m	kg N eq	2.44E-3	8.27E-5	2.01E-4	2.72E-3	8.13E-5	5.51E-4	7.13E-6	-1.11E-3	2.25E-3
EP-T	mol N eq	2.66E-2	9.11E-4	2.22E-3	2.97E-2	8.96E-4	6.07E-3	4.59E-5	-1.18E-2	2.49E-2
POCP	kg NMVOC eq	8.76E-3	2.60E-4	6.31E-4	9.65E-3	2.56E-4	1.82E-3	1.58E-5	-4.11E-3	7.63E-3
ADP-mm	kg Sb eq	3.14E-3	1.02E-6	4.87E-6	3.15E-3	1.03E-6	9.06E-6	1.15E-8	-3.49E-5	3.12E-3
ADP-f	MJ	7.63E+1	6.10E-1	1.56E+0	7.85E+1	6.13E-1	6.26E+0	3.45E-2	-4.11E+1	4.43E+1
WDP	m3 depriv.	5.15E+0	2.18E-3	1.21E+0	6.36E+0	1.88E-3	2.53E-1	2.24E-4	-2.46E+0	4.15E+0
PM	disease inc.	8.99E-8	3.63E-9	1.05E-8	1.04E-7	3.60E-9	2.82E-8	2.38E-10	-4.08E-8	9.52E-8
IR	kBq U-235 eq	1.73E-1	2.56E-3	2.48E-3	1.78E-1	2.68E-3	2.20E-2	1.59E-4	-7.93E-2	1.24E-1
ETP-fw	CTUe	7.73E+1	5.44E-1	3.63E+0	8.15E+1	4.97E-1	4.96E+1	5.51E-1	-2.36E+1	1.09E+2
HTP-c	CTUh	2.54E-9	1.76E-11	1.26E-10	2.68E-9	1.77E-11	6.90E-10	9.54E-13	-9.01E-10	2.49E-9
HTP-nc	CTUh	8.43E-8	5.95E-10	3.92E-9	8.89E-8	5.93E-10	1.70E-8	1.06E-10	-3.12E-8	7.53E-8
SQP	Pt	1.02E+1	5.29E-1	1.17E-1	1.09E+1	5.24E-1	3.82E+0	8.84E-2	-4.38E+0	1.09E+1

Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	3.91E+0	7.64E-3	7.59E+0	1.15E+1	8.79E-3	4.59E-1	1.29E-3	-1.78E+0	1.02E+1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	3.91E+0	7.64E-3	7.59E+0	1.15E+1	8.79E-3	4.59E-1	1.29E-3	-1.78E+0	1.02E+1
PENRE	MJ	8.18E+1	6.48E-1	1.69E+0	8.42E+1	6.50E-1	6.66E+0	3.66E-2	-4.43E+1	4.72E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	8.18E+1	6.48E-1	1.69E+0	8.42E+1	6.50E-1	6.66E+0	3.66E-2	-4.43E+1	4.72E+1
PET	MJ	8.58E+1	6.55E-1	9.28E+0	9.57E+1	6.59E-1	7.11E+0	3.79E-2	-4.61E+1	5.74E+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	5.64E-2	7.43E-5	2.86E-2	8.50E-2	6.93E-5	6.89E-3	4.23E-5	-2.56E-2	6.64E-2
Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	4.49E-4	1.55E-6	1.66E-6	4.52E-4	1.57E-6	1.01E-5	4.20E-8	-3.41E-5	4.30E-4
NHWD	kg	3.02E-1	3.87E-2	2.56E-3	3.44E-1	3.80E-2	2.24E-1	1.52E-1	-1.31E-1	6.27E-1
RWD	kg	1.49E-4	4.01E-6	3.07E-6	1.56E-4	4.17E-6	2.34E-5	2.25E-7	-6.98E-5	1.14E-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



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