

Environmental Profile

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

Ecochain v3.5.80



Product: 3001485 - PVC Combi Cap GY 160
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	0.06	0	0	0.06	0	0.02	0	-0.03	0.05
ADPE	kg Sb-eq	5.02E-4	1.81E-7	7.78E-7	5.03E-4	1.65E-7	1.52E-6	1.84E-9	-5.81E-6	4.99E-4
ADPF	kg Sb-eq	5.94E-3	5.21E-5	1.34E-4	6.13E-3	4.64E-5	5.21E-4	2.55E-6	-3.26E-3	3.44E-3
GWP	kg CO2-eq	5.02E-1	7.08E-3	2.54E-2	5.34E-1	6.32E-3	1.77E-1	1.73E-3	-2.82E-1	4.37E-1
ODP	kg CFC-11-eq	2.79E-7	1.26E-9	2.00E-9	2.82E-7	1.17E-9	2.18E-8	6.08E-11	-1.41E-7	1.64E-7
POCP	kg ethene-eq	2.86E-4	4.27E-6	1.10E-5	3.01E-4	3.79E-6	4.16E-5	4.50E-7	-1.48E-4	1.99E-4
AP	kg SO2-eq	2.01E-3	3.11E-5	1.09E-4	2.15E-3	2.72E-5	3.05E-4	1.37E-6	-9.84E-4	1.50E-3
EP	kg PO4 3--eq	2.65E-4	6.12E-6	1.40E-5	2.85E-4	5.43E-6	4.65E-5	5.41E-7	-1.39E-4	1.98E-4
HTP	kg 1,4-DB-eq	1.96E-1	2.98E-3	1.18E-2	2.10E-1	2.70E-3	7.92E-2	1.44E-4	-9.32E-2	1.99E-1
FAETP	kg 1,4-DB-eq	6.22E-3	8.71E-5	4.02E-4	6.71E-3	7.92E-5	1.21E-3	4.44E-5	-2.83E-3	5.21E-3
MAETP	kg 1,4-DB-eq	1.39E+1	3.13E-1	1.59E+0	1.58E+1	2.83E-1	4.22E+0	5.43E-2	-6.04E+0	1.43E+1
TETP	kg 1,4-DB-eq	1.47E-3	1.05E-5	8.76E-4	2.35E-3	9.58E-6	2.81E-4	4.85E-7	-9.49E-4	1.70E-3
Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	5.19E-1	7.15E-3	2.90E-2	5.55E-1	6.38E-3	1.94E-1	2.02E-3	-2.55E-1	5.02E-1
GWP-f	kg CO2 eq	5.13E-1	7.14E-3	2.23E-2	5.43E-1	6.37E-3	1.78E-1	2.02E-3	-2.89E-1	4.41E-1
GWP-b	kg CO2 eq	5.19E-3	3.30E-6	4.60E-3	9.79E-3	3.87E-6	1.53E-2	2.56E-6	3.35E-2	5.86E-2
GWP-luluc	kg CO2 eq	6.28E-4	2.62E-6	2.12E-3	2.75E-3	2.25E-6	8.08E-5	5.31E-8	-4.23E-4	2.41E-3
ODP	kg CFC11 eq	2.75E-7	1.58E-9	2.36E-9	2.79E-7	1.47E-9	2.25E-8	7.54E-11	-1.39E-7	1.64E-7
AP	mol H+ eq	2.46E-3	4.14E-5	1.36E-4	2.63E-3	3.63E-5	3.83E-4	1.84E-6	-1.19E-3	1.86E-3
EP-fw	kg P eq	2.51E-5	7.21E-8	3.91E-7	2.55E-5	5.24E-8	2.71E-6	2.40E-9	-1.31E-5	1.52E-5
EP-m	kg N eq	4.49E-4	1.46E-5	3.21E-5	4.96E-4	1.30E-5	9.43E-5	1.14E-6	-2.16E-4	3.88E-4
EP-T	mol N eq	4.81E-3	1.61E-4	3.54E-4	5.33E-3	1.43E-4	1.04E-3	7.32E-6	-2.33E-3	4.18E-3
POCP	kg NMVOC eq	1.52E-3	4.60E-5	1.01E-4	1.67E-3	4.09E-5	3.11E-4	2.52E-6	-7.65E-4	1.26E-3
ADP-mm	kg Sb eq	5.02E-4	1.81E-7	7.78E-7	5.03E-4	1.65E-7	1.52E-6	1.84E-9	-5.81E-6	4.99E-4
ADP-f	MJ	1.27E+1	1.08E-1	2.49E-1	1.30E+1	9.78E-2	1.03E+0	5.51E-3	-6.89E+0	7.26E+0
WDP	m3 depriv.	8.34E-1	3.85E-4	1.93E-1	1.03E+0	3.00E-4	4.06E-2	3.57E-5	-4.43E-1	6.25E-1
PM	disease inc.	1.70E-8	6.42E-10	1.68E-9	1.93E-8	5.75E-10	4.75E-9	3.79E-11	-9.84E-9	1.49E-8
IR	kBq U-235 eq	2.91E-2	4.51E-4	3.96E-4	3.00E-2	4.27E-4	3.66E-3	2.53E-5	-1.48E-2	1.93E-2
ETP-fw	CTUe	1.67E+1	9.61E-2	5.79E-1	1.74E+1	7.94E-2	7.99E+0	8.80E-2	-6.45E+0	1.91E+1
HTP-c	CTUh	4.23E-10	3.12E-12	2.00E-11	4.46E-10	2.83E-12	1.15E-10	1.52E-13	-1.64E-10	4.00E-10
HTP-nc	CTUh	1.40E-8	1.05E-10	6.26E-10	1.47E-8	9.47E-11	2.77E-9	1.69E-11	-5.68E-9	1.19E-8
SQP	Pt	3.05E+0	9.35E-2	1.86E-2	3.16E+0	8.37E-2	6.28E-1	1.41E-2	-7.04E+0	-3.15E+0

Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	9.19E-1	1.35E-3	1.21E+0	2.13E+0	1.40E-3	7.42E-2	2.06E-4	-1.44E+0	7.73E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	9.19E-1	1.35E-3	1.21E+0	2.13E+0	1.40E-3	7.42E-2	2.06E-4	-1.44E+0	7.73E-1
PENRE	MJ	1.36E+1	1.14E-1	2.69E-1	1.40E+1	1.04E-1	1.10E+0	5.85E-3	-7.41E+0	7.75E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.36E+1	1.14E-1	2.69E-1	1.40E+1	1.04E-1	1.10E+0	5.85E-3	-7.41E+0	7.75E+0
PET	MJ	1.45E+1	1.16E-1	1.48E+0	1.61E+1	1.05E-1	1.17E+0	6.05E-3	-8.85E+0	8.53E+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	9.44E-3	1.31E-5	4.56E-3	1.40E-2	1.11E-5	1.11E-3	6.75E-6	-5.42E-3	9.73E-3
Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	7.23E-5	2.73E-7	2.65E-7	7.28E-5	2.50E-7	1.70E-6	6.71E-9	-5.89E-6	6.89E-5
NHWD	kg	5.43E-2	6.83E-3	4.09E-4	6.15E-2	6.06E-3	3.72E-2	2.42E-2	-2.37E-2	1.05E-1
RWD	kg	2.54E-5	7.08E-7	4.91E-7	2.66E-5	6.65E-7	3.94E-6	3.58E-8	-1.32E-5	1.80E-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



Ecochain Technologies BV
H.J.E. Wenckebachweg 123, 1096 AM Amsterdam, The Netherlands
<https://www.ecochain.com>
+31 20 3035 777