

Environmental Profile

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

Ecochain v3.5.80



Product: 3004133 - PVC RWA Socket GY 100 S/RSP
Unit: 1 piece
Manufacturer: Wavin - NL - Hardenberg - Verified
Address: J.C. Kellerlaan 3
7772 SG Hardenberg
Netherlands

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



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.

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	0.02	0	0	0.03	0	0.01	0	-0.01	0.02
ADPE	kg Sb-eq	2.20E-4	7.69E-8	3.41E-7	2.20E-4	7.22E-8	6.55E-7	8.06E-10	-2.51E-6	2.18E-4
ADPF	kg Sb-eq	2.57E-3	2.21E-5	5.85E-5	2.65E-3	2.03E-5	2.26E-4	1.12E-6	-1.41E-3	1.49E-3
GWP	kg CO2-eq	2.16E-1	3.01E-3	1.11E-2	2.30E-1	2.77E-3	7.73E-2	7.60E-4	-1.21E-1	1.89E-1
ODP	kg CFC-11-eq	1.22E-7	5.34E-10	8.78E-10	1.23E-7	5.13E-10	9.50E-9	2.66E-11	-6.14E-8	7.17E-8
POCP	kg ethene-eq	1.23E-4	1.82E-6	4.83E-6	1.30E-4	1.66E-6	1.79E-5	1.97E-7	-6.29E-5	8.69E-5
AP	kg SO2-eq	8.64E-4	1.32E-5	4.77E-5	9.25E-4	1.19E-5	1.32E-4	6.01E-7	-4.13E-4	6.56E-4
EP	kg PO4 3--eq	1.11E-4	2.60E-6	6.14E-6	1.20E-4	2.38E-6	2.00E-5	2.37E-7	-5.58E-5	8.66E-5
HTP	kg 1,4-DB-eq	8.43E-2	1.27E-3	5.16E-3	9.07E-2	1.18E-3	3.44E-2	6.31E-5	-3.95E-2	8.69E-2
FAETP	kg 1,4-DB-eq	2.55E-3	3.70E-5	1.76E-4	2.76E-3	3.47E-5	5.23E-4	1.94E-5	-1.10E-3	2.23E-3
MAETP	kg 1,4-DB-eq	5.96E+0	1.33E-1	6.94E-1	6.78E+0	1.24E-1	1.80E+0	2.38E-2	-2.55E+0	6.18E+0
TETP	kg 1,4-DB-eq	6.24E-4	4.48E-6	3.84E-4	1.01E-3	4.19E-6	1.22E-4	2.12E-7	-3.68E-4	7.71E-4
Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	2.23E-1	3.04E-3	1.27E-2	2.39E-1	2.79E-3	8.24E-2	8.86E-4	-1.14E-1	2.11E-1
GWP-f	kg CO2 eq	2.21E-1	3.04E-3	9.77E-3	2.33E-1	2.79E-3	7.78E-2	8.86E-4	-1.24E-1	1.91E-1
GWP-b	kg CO2 eq	2.20E-3	1.40E-6	2.02E-3	4.21E-3	1.69E-6	4.56E-3	1.12E-6	9.77E-3	1.85E-2
GWP-luluc	kg CO2 eq	2.48E-4	1.11E-6	9.27E-4	1.18E-3	9.88E-7	3.53E-5	2.32E-8	-1.51E-4	1.06E-3
ODP	kg CFC11 eq	1.20E-7	6.70E-10	1.03E-9	1.22E-7	6.43E-10	9.78E-9	3.30E-11	-6.07E-8	7.14E-8
AP	mol H+ eq	1.05E-3	1.76E-5	5.96E-5	1.13E-3	1.59E-5	1.66E-4	8.04E-7	-5.00E-4	8.11E-4
EP-fw	kg P eq	1.07E-5	3.06E-8	1.71E-7	1.09E-5	2.30E-8	1.18E-6	1.05E-9	-5.32E-6	6.77E-6
EP-m	kg N eq	1.88E-4	6.20E-6	1.41E-5	2.09E-4	5.69E-6	4.04E-5	4.98E-7	-8.93E-5	1.66E-4
EP-T	mol N eq	2.03E-3	6.84E-5	1.55E-4	2.25E-3	6.27E-5	4.46E-4	3.21E-6	-9.60E-4	1.80E-3
POCP	kg NMVOC eq	6.50E-4	1.95E-5	4.41E-5	7.14E-4	1.79E-5	1.33E-4	1.10E-6	-3.20E-4	5.46E-4
ADP-mm	kg Sb eq	2.20E-4	7.69E-8	3.41E-7	2.20E-4	7.22E-8	6.55E-7	8.06E-10	-2.51E-6	2.18E-4
ADP-f	MJ	5.48E+0	4.58E-2	1.09E-1	5.64E+0	4.28E-2	4.47E-1	2.41E-3	-2.97E+0	3.16E+0
WDP	m3 depriv.	3.64E-1	1.64E-4	8.45E-2	4.48E-1	1.31E-4	1.78E-2	1.56E-5	-1.87E-1	2.79E-1
PM	disease inc.	7.09E-9	2.73E-10	7.35E-10	8.10E-9	2.52E-10	2.05E-9	1.66E-11	-3.85E-9	6.56E-9
IR	kBq U-235 eq	1.26E-2	1.92E-4	1.74E-4	1.29E-2	1.87E-4	1.58E-3	1.11E-5	-6.20E-3	8.50E-3
ETP-fw	CTUe	6.72E+0	4.08E-2	2.54E-1	7.02E+0	3.48E-2	3.49E+0	3.85E-2	-2.45E+0	8.13E+0
HTP-c	CTUh	1.83E-10	1.32E-12	8.78E-12	1.93E-10	1.24E-12	4.97E-11	6.67E-14	-6.92E-11	1.75E-10
HTP-nc	CTUh	6.05E-9	4.47E-11	2.74E-10	6.36E-9	4.15E-11	1.21E-9	7.39E-12	-2.39E-9	5.23E-9
SQP	Pt	1.14E+0	3.97E-2	8.16E-3	1.19E+0	3.66E-2	2.73E-1	6.18E-3	-2.21E+0	-7.03E-1

Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	3.62E-1	5.73E-4	5.31E-1	8.93E-1	6.14E-4	3.24E-2	9.01E-5	-4.69E-1	4.57E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	3.62E-1	5.73E-4	5.31E-1	8.93E-1	6.14E-4	3.24E-2	9.01E-5	-4.69E-1	4.57E-1
PENRE	MJ	5.88E+0	4.86E-2	1.18E-1	6.05E+0	4.55E-2	4.76E-1	2.56E-3	-3.20E+0	3.37E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	5.88E+0	4.86E-2	1.18E-1	6.05E+0	4.55E-2	4.76E-1	2.56E-3	-3.20E+0	3.37E+0
PET	MJ	6.24E+0	4.92E-2	6.49E-1	6.94E+0	4.61E-2	5.08E-1	2.65E-3	-3.67E+0	3.83E+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	4.08E-3	5.58E-6	2.00E-3	6.08E-3	4.85E-6	4.86E-4	2.96E-6	-2.19E-3	4.38E-3
Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	3.16E-5	1.16E-7	1.16E-7	3.18E-5	1.10E-7	7.31E-7	2.94E-9	-2.52E-6	3.01E-5
NHWD	kg	2.30E-2	2.90E-3	1.79E-4	2.60E-2	2.65E-3	1.61E-2	1.06E-2	-9.99E-3	4.54E-2
RWD	kg	1.09E-5	3.01E-7	2.15E-7	1.14E-5	2.91E-7	1.70E-6	1.57E-8	-5.51E-6	7.92E-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



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