

Environmental Profile

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

Ecochain v3.5.80



Product: 3004221 - PVC RWA Socket WT 80 S/RSP
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	0.02	0	0	0	-0.01	0.01
ADPE	kg Sb-eq	1.60E-4	4.35E-8	1.99E-7	1.60E-4	4.02E-8	3.65E-7	4.56E-10	-1.42E-6	1.59E-4
ADPF	kg Sb-eq	1.48E-3	1.25E-5	3.42E-5	1.53E-3	1.13E-5	1.25E-4	6.25E-7	-7.96E-4	8.72E-4
GWP	kg CO2-eq	1.30E-1	1.70E-3	6.50E-3	1.38E-1	1.54E-3	4.35E-2	4.29E-4	-6.90E-2	1.15E-1
ODP	kg CFC-11-eq	6.45E-8	3.02E-10	5.14E-10	6.53E-8	2.86E-10	5.17E-9	1.48E-11	-3.44E-8	3.64E-8
POCP	kg ethene-eq	7.89E-5	1.03E-6	2.82E-6	8.28E-5	9.24E-7	1.01E-5	1.11E-7	-3.62E-5	5.77E-5
AP	kg SO2-eq	5.41E-4	7.48E-6	2.79E-5	5.76E-4	6.63E-6	7.33E-5	3.37E-7	-2.41E-4	4.16E-4
EP	kg PO4 3--eq	7.02E-5	1.47E-6	3.59E-6	7.52E-5	1.32E-6	1.12E-5	1.31E-7	-3.41E-5	5.38E-5
HTP	kg 1,4-DB-eq	4.88E-2	7.17E-4	3.02E-3	5.26E-2	6.59E-4	1.92E-2	3.51E-5	-2.28E-2	4.97E-2
FAETP	kg 1,4-DB-eq	1.63E-3	2.09E-5	1.03E-4	1.75E-3	1.93E-5	2.96E-4	1.09E-5	-6.97E-4	1.38E-3
MAETP	kg 1,4-DB-eq	3.53E+0	7.52E-2	4.06E-1	4.01E+0	6.89E-2	1.03E+0	1.34E-2	-1.48E+0	3.64E+0
TETP	kg 1,4-DB-eq	3.53E-4	2.53E-6	2.24E-4	5.80E-4	2.33E-6	6.80E-5	1.18E-7	-2.33E-4	4.17E-4
Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	1.34E-1	1.72E-3	7.43E-3	1.44E-1	1.55E-3	4.76E-2	5.00E-4	-6.22E-2	1.31E-1
GWP-f	kg CO2 eq	1.33E-1	1.72E-3	5.71E-3	1.40E-1	1.55E-3	4.38E-2	5.00E-4	-7.04E-2	1.16E-1
GWP-b	kg CO2 eq	1.30E-3	7.92E-7	1.18E-3	2.48E-3	9.43E-7	3.81E-3	6.19E-7	8.36E-3	1.46E-2
GWP-luluc	kg CO2 eq	1.56E-4	6.29E-7	5.42E-4	6.99E-4	5.50E-7	1.93E-5	1.35E-8	-1.04E-4	6.15E-4
ODP	kg CFC11 eq	6.37E-8	3.79E-10	6.04E-10	6.47E-8	3.58E-10	5.34E-9	1.84E-11	-3.40E-8	3.64E-8
AP	mol H+ eq	6.59E-4	9.95E-6	3.48E-5	7.04E-4	8.85E-6	9.21E-5	4.51E-7	-2.92E-4	5.13E-4
EP-fw	kg P eq	6.40E-6	1.73E-8	1.00E-7	6.52E-6	1.28E-8	6.47E-7	6.03E-10	-3.21E-6	3.97E-6
EP-m	kg N eq	1.20E-4	3.51E-6	8.23E-6	1.32E-4	3.17E-6	2.28E-5	2.74E-7	-5.28E-5	1.06E-4
EP-T	mol N eq	1.27E-3	3.87E-5	9.07E-5	1.40E-3	3.49E-5	2.51E-4	1.79E-6	-5.71E-4	1.12E-3
POCP	kg NMVOC eq	4.10E-4	1.10E-5	2.58E-5	4.47E-4	9.97E-6	7.51E-5	6.18E-7	-1.87E-4	3.45E-4
ADP-mm	kg Sb eq	1.60E-4	4.35E-8	1.99E-7	1.60E-4	4.02E-8	3.65E-7	4.56E-10	-1.42E-6	1.59E-4
ADP-f	MJ	3.15E+0	2.59E-2	6.39E-2	3.24E+0	2.38E-2	2.48E-1	1.35E-3	-1.68E+0	1.83E+0
WDP	m3 depriv.	1.98E-1	9.26E-5	4.94E-2	2.47E-1	7.32E-5	9.66E-3	1.06E-5	-1.08E-1	1.48E-1
PM	disease inc.	4.62E-9	1.54E-10	4.30E-10	5.21E-9	1.40E-10	1.15E-9	9.28E-12	-2.42E-9	4.09E-9
IR	kBq U-235 eq	6.99E-3	1.08E-4	1.02E-4	7.20E-3	1.04E-4	8.80E-4	6.16E-6	-3.63E-3	4.56E-3
ETP-fw	CTUe	4.43E+0	2.31E-2	1.48E-1	4.61E+0	1.94E-2	1.89E+0	2.08E-2	-1.59E+0	4.95E+0
HTP-c	CTUh	1.12E-10	7.49E-13	5.13E-12	1.18E-10	6.89E-13	2.90E-11	3.85E-14	-4.02E-11	1.07E-10
HTP-nc	CTUh	3.58E-9	2.52E-11	1.60E-10	3.77E-9	2.31E-11	6.65E-10	4.01E-12	-1.39E-9	3.07E-9
SQP	Pt	7.56E-1	2.25E-2	4.77E-3	7.83E-1	2.04E-2	1.52E-1	3.44E-3	-1.75E+0	-7.92E-1

Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	2.24E-1	3.24E-4	3.11E-1	5.35E-1	3.42E-4	1.77E-2	4.93E-5	-3.56E-1	1.97E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	2.24E-1	3.24E-4	3.11E-1	5.35E-1	3.42E-4	1.77E-2	4.93E-5	-3.56E-1	1.97E-1
PENRE	MJ	3.38E+0	2.75E-2	6.90E-2	3.48E+0	2.53E-2	2.64E-1	1.43E-3	-1.81E+0	1.96E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	3.38E+0	2.75E-2	6.90E-2	3.48E+0	2.53E-2	2.64E-1	1.43E-3	-1.81E+0	1.96E+0
PET	MJ	3.60E+0	2.78E-2	3.80E-1	4.01E+0	2.57E-2	2.82E-1	1.48E-3	-2.17E+0	2.15E+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	2.33E-3	3.15E-6	1.17E-3	3.50E-3	2.70E-6	2.65E-4	1.64E-6	-1.33E-3	2.44E-3
Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	2.23E-5	6.56E-8	6.78E-8	2.25E-5	6.10E-8	4.10E-7	1.66E-9	-1.44E-6	2.15E-5
NHWD	kg	1.34E-2	1.64E-3	1.05E-4	1.52E-2	1.48E-3	9.06E-3	5.91E-3	-5.79E-3	2.58E-2
RWD	kg	6.07E-6	1.70E-7	1.26E-7	6.37E-6	1.62E-7	9.50E-7	8.74E-9	-3.24E-6	4.25E-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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