

Environmental Profile

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

Ecochain v3.5.80



Product: 3001257 - Wafix PVC Repair Socket GY 160 SN4
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]

Statement of Confidentiality

This document and supporting material contain confidential and proprietary business information of Wavin - NL - Hardenberg - Verified. These materials may be printed or (photo) copied or otherwise used only with the written consent of Wavin - NL - Hardenberg - Verified.

Results

Environmental impact SBK set 1	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
ECI	euro	0.14	0	0.01	0.16	0	0.05	0	-0.07	0.13
ADPE	kg Sb-eq	1.10E-3	4.92E-7	1.99E-6	1.11E-3	4.39E-7	3.59E-6	4.88E-9	-1.39E-5	1.10E-3
ADPF	kg Sb-eq	1.71E-2	1.42E-4	3.42E-4	1.76E-2	1.23E-4	1.26E-3	6.78E-6	-9.06E-3	9.87E-3
GWP	kg CO2-eq	1.32E+0	1.93E-2	6.50E-2	1.40E+0	1.68E-2	4.79E-1	5.04E-3	-7.41E-1	1.16E+0
ODP	kg CFC-11-eq	6.12E-7	3.42E-9	5.14E-9	6.21E-7	3.12E-9	4.78E-8	1.62E-10	-3.25E-7	3.47E-7
POCP	kg ethene-eq	8.82E-4	1.16E-5	2.82E-5	9.21E-4	1.01E-5	1.02E-4	1.27E-6	-3.99E-4	6.36E-4
AP	kg SO2-eq	5.22E-3	8.47E-5	2.79E-4	5.59E-3	7.24E-5	7.20E-4	3.64E-6	-2.42E-3	3.97E-3
EP	kg PO4 3--eq	6.47E-4	1.66E-5	3.59E-5	7.00E-4	1.45E-5	1.12E-4	1.66E-6	-3.15E-4	5.13E-4
HTP	kg 1,4-DB-eq	4.81E-1	8.11E-3	3.02E-2	5.20E-1	7.19E-3	1.99E-1	4.04E-4	-2.19E-1	5.07E-1
FAETP	kg 1,4-DB-eq	1.40E-2	2.37E-4	1.03E-3	1.53E-2	2.11E-4	3.14E-3	1.82E-4	-6.00E-3	1.28E-2
MAETP	kg 1,4-DB-eq	3.41E+1	8.51E-1	4.06E+0	3.90E+1	7.53E-1	1.01E+1	2.04E-1	-1.41E+1	3.59E+1
TETP	kg 1,4-DB-eq	3.28E-3	2.87E-5	2.24E-3	5.55E-3	2.55E-5	6.95E-4	1.24E-6	-1.97E-3	4.30E-3
Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	1.36E+0	1.94E-2	7.43E-2	1.46E+0	1.70E-2	5.06E-1	5.89E-3	-7.09E-1	1.28E+0
GWP-f	kg CO2 eq	1.35E+0	1.94E-2	5.71E-2	1.43E+0	1.70E-2	4.82E-1	5.89E-3	-7.58E-1	1.18E+0
GWP-b	kg CO2 eq	9.49E-3	8.97E-6	1.18E-2	2.13E-2	1.03E-5	2.35E-2	6.87E-6	5.03E-2	9.51E-2
GWP-luluc	kg CO2 eq	1.34E-3	7.12E-6	5.42E-3	6.77E-3	6.00E-6	1.89E-4	1.41E-7	-8.08E-4	6.16E-3
ODP	kg CFC11 eq	6.09E-7	4.29E-9	6.04E-9	6.20E-7	3.91E-9	4.96E-8	2.01E-10	-3.22E-7	3.51E-7
AP	mol H+ eq	6.34E-3	1.13E-4	3.48E-4	6.80E-3	9.66E-5	9.06E-4	4.88E-6	-2.92E-3	4.88E-3
EP-fw	kg P eq	5.85E-5	1.96E-7	1.00E-6	5.97E-5	1.39E-7	6.25E-6	6.38E-9	-2.90E-5	3.71E-5
EP-m	kg N eq	1.11E-3	3.97E-5	8.23E-5	1.23E-3	3.46E-5	2.27E-4	3.51E-6	-5.21E-4	9.71E-4
EP-T	mol N eq	1.20E-2	4.38E-4	9.07E-4	1.34E-2	3.81E-4	2.50E-3	1.95E-5	-5.62E-3	1.07E-2
POCP	kg NMVOC eq	4.20E-3	1.25E-4	2.58E-4	4.58E-3	1.09E-4	7.52E-4	6.82E-6	-1.95E-3	3.50E-3
ADP-mm	kg Sb eq	1.10E-3	4.92E-7	1.99E-6	1.11E-3	4.39E-7	3.59E-6	4.88E-9	-1.39E-5	1.10E-3
ADP-f	MJ	3.63E+1	2.93E-1	6.39E-1	3.72E+1	2.60E-1	2.50E+0	1.47E-2	-1.90E+1	2.10E+1
WDP	m3 depriv.	1.95E+0	1.05E-3	4.94E-1	2.45E+0	7.99E-4	9.22E-2	8.96E-5	-1.04E+0	1.50E+0
PM	disease inc.	4.74E-8	1.74E-9	4.30E-9	5.35E-8	1.53E-9	1.16E-8	1.01E-10	-2.27E-8	4.41E-8
IR	kBq U-235 eq	7.62E-2	1.23E-3	1.02E-3	7.84E-2	1.14E-3	8.67E-3	6.78E-5	-3.40E-2	5.43E-2
ETP-fw	CTUe	3.60E+1	2.61E-1	1.48E+0	3.77E+1	2.11E-1	1.72E+1	1.89E-1	-1.32E+1	4.20E+1
HTP-c	CTUh	9.81E-10	8.47E-12	5.13E-11	1.04E-9	7.52E-12	2.83E-10	3.97E-13	-3.80E-10	9.51E-10
HTP-nc	CTUh	3.16E-8	2.86E-10	1.60E-9	3.35E-8	2.52E-10	6.37E-9	3.74E-11	-1.30E-8	2.71E-8
SQP	Pt	6.57E+0	2.54E-1	4.77E-2	6.87E+0	2.23E-1	1.59E+0	3.76E-2	-1.16E+1	-2.84E+0

Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	2.02E+0	3.67E-3	3.11E+0	5.13E+0	3.73E-3	1.73E-1	5.60E-4	-2.49E+0	2.82E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	2.02E+0	3.67E-3	3.11E+0	5.13E+0	3.73E-3	1.73E-1	5.60E-4	-2.49E+0	2.82E+0
PENRE	MJ	3.89E+1	3.11E-1	6.90E-1	3.99E+1	2.76E-1	2.66E+0	1.56E-2	-2.05E+1	2.24E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	3.89E+1	3.11E-1	6.90E-1	3.99E+1	2.76E-1	2.66E+0	1.56E-2	-2.05E+1	2.24E+1
PET	MJ	4.09E+1	3.15E-1	3.80E+0	4.51E+1	2.80E-1	2.83E+0	1.61E-2	-2.30E+1	2.52E+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	2.37E-2	3.57E-5	1.17E-2	3.54E-2	2.94E-5	2.56E-3	1.80E-5	-1.23E-2	2.56E-2
Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.54E-4	7.42E-7	6.78E-7	1.56E-4	6.65E-7	4.10E-6	1.78E-8	-1.40E-5	1.46E-4
NHWD	kg	1.26E-1	1.86E-2	1.05E-3	1.46E-1	1.61E-2	9.50E-2	6.45E-2	-5.49E-2	2.66E-1
RWD	kg	7.15E-5	1.92E-6	1.26E-6	7.46E-5	1.77E-6	9.49E-6	9.56E-8	-3.02E-5	5.58E-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