

Environmental Profile

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

Ecochain v3.5.80



Product: 3024518 - WfxPVC Repair Coupler 125 GY/GD SN8
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	0.07	0	0	0.08	0	0.02	0	-0.04	0.07
ADPE	kg Sb-eq	5.19E-4	2.51E-7	1.15E-6	5.20E-4	2.17E-7	1.74E-6	2.41E-9	-6.76E-6	5.15E-4
ADPF	kg Sb-eq	8.67E-3	7.21E-5	1.98E-4	8.94E-3	6.10E-5	6.10E-4	3.35E-6	-4.56E-3	5.05E-3
GWP	kg CO2-eq	6.62E-1	9.81E-3	3.75E-2	7.09E-1	8.30E-3	2.39E-1	2.54E-3	-3.71E-1	5.88E-1
ODP	kg CFC-11-eq	2.88E-7	1.74E-9	2.97E-9	2.93E-7	1.54E-9	2.25E-8	7.99E-11	-1.56E-7	1.61E-7
POCP	kg ethene-eq	4.58E-4	5.92E-6	1.63E-5	4.80E-4	4.98E-6	5.04E-5	6.34E-7	-2.03E-4	3.34E-4
AP	kg SO2-eq	2.62E-3	4.31E-5	1.61E-4	2.82E-3	3.57E-5	3.49E-4	1.80E-6	-1.22E-3	1.99E-3
EP	kg PO4 3--eq	3.27E-4	8.47E-6	2.07E-5	3.57E-4	7.14E-6	5.46E-5	8.55E-7	-1.62E-4	2.57E-4
HTP	kg 1,4-DB-eq	2.38E-1	4.13E-3	1.74E-2	2.60E-1	3.55E-3	9.76E-2	2.02E-4	-1.08E-1	2.53E-1
FAETP	kg 1,4-DB-eq	7.11E-3	1.21E-4	5.95E-4	7.82E-3	1.04E-4	1.55E-3	9.69E-5	-3.14E-3	6.44E-3
MAETP	kg 1,4-DB-eq	1.69E+1	4.34E-1	2.35E+0	1.97E+1	3.72E-1	4.96E+0	1.07E-1	-6.99E+0	1.82E+1
TETP	kg 1,4-DB-eq	1.60E-3	1.46E-5	1.30E-3	2.91E-3	1.26E-5	3.38E-4	6.05E-7	-1.03E-3	2.23E-3
Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	6.83E-1	9.90E-3	4.29E-2	7.36E-1	8.38E-3	2.56E-1	2.97E-3	-3.48E-1	6.55E-1
GWP-f	kg CO2 eq	6.78E-1	9.89E-3	3.30E-2	7.21E-1	8.37E-3	2.40E-1	2.97E-3	-3.80E-1	5.93E-1
GWP-b	kg CO2 eq	4.27E-3	4.57E-6	6.81E-3	1.11E-2	5.08E-6	1.50E-2	3.40E-6	3.26E-2	5.87E-2
GWP-luluc	kg CO2 eq	6.96E-4	3.62E-6	3.13E-3	3.83E-3	2.96E-6	9.06E-5	6.93E-8	-4.48E-4	3.48E-3
ODP	kg CFC11 eq	2.88E-7	2.18E-9	3.49E-9	2.94E-7	1.93E-9	2.34E-8	9.91E-11	-1.55E-7	1.64E-7
AP	mol H+ eq	3.18E-3	5.74E-5	2.01E-4	3.44E-3	4.77E-5	4.40E-4	2.41E-6	-1.47E-3	2.46E-3
EP-fw	kg P eq	2.88E-5	9.98E-8	5.78E-7	2.94E-5	6.89E-8	2.98E-6	3.15E-9	-1.47E-5	1.78E-5
EP-m	kg N eq	5.58E-4	2.02E-5	4.75E-5	6.26E-4	1.71E-5	1.11E-4	1.80E-6	-2.65E-4	4.91E-4
EP-T	mol N eq	6.08E-3	2.23E-4	5.24E-4	6.83E-3	1.88E-4	1.22E-3	9.63E-6	-2.86E-3	5.38E-3
POCP	kg NMVOC eq	2.15E-3	6.36E-5	1.49E-4	2.36E-3	5.37E-5	3.70E-4	3.38E-6	-9.91E-4	1.80E-3
ADP-mm	kg Sb eq	5.19E-4	2.51E-7	1.15E-6	5.20E-4	2.17E-7	1.74E-6	2.41E-9	-6.75E-6	5.15E-4
ADP-f	MJ	1.84E+1	1.49E-1	3.69E-1	1.90E+1	1.28E-1	1.21E+0	7.24E-3	-9.58E+0	1.07E+1
WDP	m3 depriv.	9.35E-1	5.33E-4	2.85E-1	1.22E+0	3.94E-4	4.37E-2	4.36E-5	-5.15E-1	7.50E-1
PM	disease inc.	2.48E-8	8.88E-10	2.48E-9	2.82E-8	7.56E-10	5.71E-9	4.98E-11	-1.19E-8	2.28E-8
IR	kBq U-235 eq	3.83E-2	6.25E-4	5.86E-4	3.95E-2	5.62E-4	4.20E-3	3.35E-5	-1.69E-2	2.74E-2
ETP-fw	CTUe	1.83E+1	1.33E-1	8.57E-1	1.93E+1	1.04E-1	7.99E+0	8.76E-2	-7.02E+0	2.05E+1
HTP-c	CTUh	4.76E-10	4.31E-12	2.96E-11	5.09E-10	3.71E-12	1.38E-10	1.95E-13	-1.88E-10	4.63E-10
HTP-nc	CTUh	1.52E-8	1.45E-10	9.26E-10	1.62E-8	1.24E-10	3.04E-9	1.76E-11	-6.45E-9	1.30E-8
SQP	Pt	3.59E+0	1.29E-1	2.76E-2	3.75E+0	1.10E-1	7.80E-1	1.85E-2	-7.08E+0	-2.42E+0

Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.06E+0	1.87E-3	1.79E+0	2.85E+0	1.84E-3	8.25E-2	2.78E-4	-1.47E+0	1.46E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.06E+0	1.87E-3	1.79E+0	2.85E+0	1.84E-3	8.25E-2	2.78E-4	-1.47E+0	1.46E+0
PENRE	MJ	1.98E+1	1.58E-1	3.99E-1	2.03E+1	1.36E-1	1.29E+0	7.69E-3	-1.03E+1	1.14E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.98E+1	1.58E-1	3.99E-1	2.03E+1	1.36E-1	1.29E+0	7.69E-3	-1.03E+1	1.14E+1
PET	MJ	2.08E+1	1.60E-1	2.19E+0	2.32E+1	1.38E-1	1.38E+0	7.96E-3	-1.18E+1	1.29E+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	1.17E-2	1.82E-5	6.75E-3	1.85E-2	1.45E-5	1.22E-3	8.90E-6	-6.32E-3	1.34E-2
Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	7.17E-5	3.78E-7	3.92E-7	7.25E-5	3.29E-7	2.00E-6	8.79E-9	-6.89E-6	6.79E-5
NHWD	kg	6.27E-2	9.46E-3	6.05E-4	7.28E-2	7.96E-3	4.69E-2	3.18E-2	-2.72E-2	1.32E-1
RWD	kg	3.68E-5	9.79E-7	7.26E-7	3.85E-5	8.74E-7	4.64E-6	4.72E-8	-1.51E-5	2.90E-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



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