

Environmental Profile

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

Ecochain v3.5.80



Product: 3004650 - PVC Electro Pipe Vsv GY 1 1/4" L=4
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



With Wavin electro PVC you not only opt for a complete range, but also for high quality.

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

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Results

Environmental impact SBK set 1	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
ECI	euro	0.2	0	0.01	0.22	0	0.07	0	-0.1	0.19
ADPE	kg Sb-eq	4.83E-5	1.02E-6	1.54E-6	5.08E-5	6.56E-7	5.60E-6	6.96E-9	-2.03E-5	3.68E-5
ADPF	kg Sb-eq	2.25E-2	2.94E-4	4.14E-4	2.32E-2	1.85E-4	1.97E-3	9.80E-6	-1.16E-2	1.38E-2
GWP	kg CO2-eq	1.87E+0	4.00E-2	7.36E-2	1.99E+0	2.52E-2	6.70E-1	6.34E-3	-9.75E-1	1.71E+0
ODP	kg CFC-11-eq	9.91E-7	7.09E-9	6.91E-9	1.01E-6	4.67E-9	8.05E-8	2.35E-10	-5.04E-7	5.86E-7
POCP	kg ethene-eq	1.23E-3	2.41E-5	3.24E-5	1.29E-3	1.51E-5	1.55E-4	1.67E-6	-5.01E-4	9.61E-4
AP	kg SO2-eq	7.42E-3	1.76E-4	2.89E-4	7.89E-3	1.08E-4	1.14E-3	5.24E-6	-3.18E-3	5.96E-3
EP	kg PO4 3--eq	8.74E-4	3.45E-5	4.56E-5	9.54E-4	2.16E-5	1.72E-4	2.04E-6	-3.89E-4	7.61E-4
HTP	kg 1,4-DB-eq	6.70E-1	1.68E-2	2.78E-2	7.14E-1	1.08E-2	3.02E-1	5.43E-4	-3.08E-1	7.20E-1
FAETP	kg 1,4-DB-eq	1.47E-2	4.91E-4	1.13E-3	1.63E-2	3.15E-4	4.54E-3	1.66E-4	-6.74E-3	1.46E-2
MAETP	kg 1,4-DB-eq	4.26E+1	1.77E+0	4.61E+0	4.90E+1	1.13E+0	1.50E+1	2.02E-1	-1.98E+1	4.55E+1
TETP	kg 1,4-DB-eq	4.64E-3	5.95E-5	1.72E-3	6.42E-3	3.81E-5	1.08E-3	1.80E-6	-2.24E-3	5.30E-3
Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	1.77E+0	4.04E-2	8.67E-2	1.90E+0	2.54E-2	8.45E-1	7.39E-3	-1.01E+0	1.77E+0
GWP-f	kg CO2 eq	1.93E+0	4.03E-2	6.79E-2	2.03E+0	2.54E-2	6.75E-1	7.39E-3	-9.98E-1	1.75E+0
GWP-b	kg CO2 eq	-1.56E-1	1.86E-5	1.47E-2	-1.41E-1	1.54E-5	1.69E-1	9.47E-6	-6.96E-3	2.12E-2
GWP-luluc	kg CO2 eq	1.43E-3	1.48E-5	4.14E-3	5.59E-3	8.98E-6	3.06E-4	1.96E-7	-6.68E-4	5.23E-3
ODP	kg CFC11 eq	9.77E-7	8.90E-9	8.20E-9	9.94E-7	5.85E-9	8.30E-8	2.92E-10	-4.99E-7	5.84E-7
AP	mol H+ eq	8.92E-3	2.34E-4	3.70E-4	9.52E-3	1.45E-4	1.43E-3	7.01E-6	-3.85E-3	7.25E-3
EP-fw	kg P eq	8.26E-5	4.07E-7	9.70E-7	8.40E-5	2.09E-7	1.02E-5	8.89E-9	-3.69E-5	5.75E-5
EP-m	kg N eq	1.52E-3	8.24E-5	1.09E-4	1.72E-3	5.17E-5	3.48E-4	4.31E-6	-6.75E-4	1.45E-3
EP-T	mol N eq	1.59E-2	9.08E-4	1.17E-3	1.80E-2	5.70E-4	3.84E-3	2.81E-5	-7.29E-3	1.52E-2
POCP	kg NMVOC eq	5.71E-3	2.59E-4	3.30E-4	6.30E-3	1.63E-4	1.15E-3	9.57E-6	-2.48E-3	5.14E-3
ADP-mm	kg Sb eq	4.83E-5	1.02E-6	1.54E-6	5.08E-5	6.56E-7	5.60E-6	6.96E-9	-2.03E-5	3.68E-5
ADP-f	MJ	4.78E+1	6.08E-1	7.85E-1	4.92E+1	3.90E-1	3.89E+0	2.12E-2	-2.43E+1	2.92E+1
WDP	m3 depriv.	2.97E+0	2.18E-3	5.31E-1	3.50E+0	1.20E-3	1.53E-1	1.18E-4	-1.43E+0	2.22E+0
PM	disease inc.	6.76E-8	3.62E-9	5.74E-9	7.69E-8	2.29E-9	1.77E-8	1.45E-10	-2.52E-8	7.19E-8
IR	kBq U-235 eq	9.53E-2	2.55E-3	1.42E-3	9.93E-2	1.70E-3	1.36E-2	9.74E-5	-4.65E-2	6.83E-2
ETP-fw	CTUe	3.00E+1	5.42E-1	1.31E+0	3.19E+1	3.16E-1	2.95E+1	3.26E-1	-1.45E+1	4.75E+1
HTP-c	CTUh	1.22E-9	1.76E-11	4.47E-11	1.28E-9	1.13E-11	4.30E-10	5.57E-13	-5.35E-10	1.19E-9
HTP-nc	CTUh	3.85E-8	5.93E-10	1.37E-9	4.04E-8	3.77E-10	1.03E-8	6.25E-11	-1.85E-8	3.28E-8
SQP	Pt	2.09E+1	5.28E-1	5.88E-2	2.15E+1	3.33E-1	2.42E+0	5.40E-2	-5.85E+0	1.85E+1

Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	4.48E+0	7.61E-3	2.37E+0	6.85E+0	5.59E-3	2.80E-1	7.75E-4	-1.71E+0	5.43E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	4.48E+0	7.61E-3	2.37E+0	6.85E+0	5.59E-3	2.80E-1	7.75E-4	-1.71E+0	5.43E+0
PENRE	MJ	5.13E+1	6.46E-1	8.51E-1	5.28E+1	4.14E-1	4.14E+0	2.25E-2	-2.61E+1	3.12E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	5.13E+1	6.46E-1	8.51E-1	5.28E+1	4.14E-1	4.14E+0	2.25E-2	-2.61E+1	3.12E+1
PET	MJ	5.57E+1	6.53E-1	3.22E+0	5.96E+1	4.19E-1	4.42E+0	2.33E-2	-2.78E+1	3.66E+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	3.22E-2	7.41E-5	1.25E-2	4.47E-2	4.41E-5	4.19E-3	2.60E-5	-1.50E-2	3.40E-2
Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	3.60E-5	1.54E-6	1.10E-6	3.87E-5	9.96E-7	6.27E-6	2.56E-8	-2.01E-5	2.58E-5
NHWD	kg	1.75E-1	3.86E-2	1.59E-3	2.15E-1	2.41E-2	1.45E-1	9.65E-2	-7.76E-2	4.03E-1
RWD	kg	8.38E-5	3.99E-6	1.98E-6	8.98E-5	2.65E-6	1.46E-5	1.38E-7	-4.10E-5	6.61E-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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