

Environmental Profile

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

Ecochain v3.5.80



Product: 3004648 - PVC Electro Pipe Vsv GY 3/4" 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	0.09	0	0	0.09	0	0.03	0	-0.04	0.08
ADPE	kg Sb-eq	2.08E-5	4.38E-7	6.66E-7	2.19E-5	2.83E-7	2.41E-6	3.00E-9	-8.77E-6	1.58E-5
ADPF	kg Sb-eq	9.67E-3	1.26E-4	1.79E-4	9.97E-3	7.97E-5	8.48E-4	4.23E-6	-4.98E-3	5.92E-3
GWP	kg CO2-eq	8.05E-1	1.71E-2	3.17E-2	8.54E-1	1.09E-2	2.88E-1	2.74E-3	-4.20E-1	7.35E-1
ODP	kg CFC-11-eq	4.27E-7	3.04E-9	2.98E-9	4.33E-7	2.01E-9	3.47E-8	1.01E-10	-2.17E-7	2.53E-7
POCP	kg ethene-eq	5.28E-4	1.03E-5	1.40E-5	5.52E-4	6.52E-6	6.65E-5	7.22E-7	-2.15E-4	4.10E-4
AP	kg SO2-eq	3.18E-3	7.54E-5	1.25E-4	3.38E-3	4.67E-5	4.89E-4	2.26E-6	-1.37E-3	2.55E-3
EP	kg PO4 3--eq	3.73E-4	1.48E-5	1.97E-5	4.08E-4	9.34E-6	7.40E-5	8.80E-7	-1.66E-4	3.26E-4
HTP	kg 1,4-DB-eq	2.87E-1	7.22E-3	1.20E-2	3.07E-1	4.65E-3	1.30E-1	2.34E-4	-1.33E-1	3.09E-1
FAETP	kg 1,4-DB-eq	6.29E-3	2.11E-4	4.88E-4	6.99E-3	1.36E-4	1.95E-3	7.16E-5	-2.90E-3	6.25E-3
MAETP	kg 1,4-DB-eq	1.83E+1	7.58E-1	1.99E+0	2.10E+1	4.86E-1	6.44E+0	8.71E-2	-8.52E+0	1.95E+1
TETP	kg 1,4-DB-eq	1.99E-3	2.55E-5	7.44E-4	2.76E-3	1.65E-5	4.65E-4	7.77E-7	-9.64E-4	2.28E-3
Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	7.77E-1	1.73E-2	3.74E-2	8.32E-1	1.10E-2	3.46E-1	3.19E-3	-4.32E-1	7.60E-1
GWP-f	kg CO2 eq	8.27E-1	1.73E-2	2.93E-2	8.74E-1	1.09E-2	2.90E-1	3.19E-3	-4.29E-1	7.48E-1
GWP-b	kg CO2 eq	-5.02E-2	7.98E-6	6.33E-3	-4.38E-2	6.65E-6	5.60E-2	4.09E-6	-3.00E-3	9.19E-3
GWP-luluc	kg CO2 eq	6.07E-4	6.34E-6	1.78E-3	2.40E-3	3.88E-6	1.32E-4	8.46E-8	-2.86E-4	2.25E-3
ODP	kg CFC11 eq	4.21E-7	3.82E-9	3.54E-9	4.29E-7	2.52E-9	3.58E-8	1.26E-10	-2.15E-7	2.52E-7
AP	mol H+ eq	3.82E-3	1.00E-4	1.60E-4	4.08E-3	6.24E-5	6.14E-4	3.03E-6	-1.65E-3	3.11E-3
EP-fw	kg P eq	3.55E-5	1.74E-7	4.19E-7	3.60E-5	9.01E-8	4.40E-6	3.83E-9	-1.59E-5	2.46E-5
EP-m	kg N eq	6.51E-4	3.53E-5	4.71E-5	7.33E-4	2.23E-5	1.49E-4	1.86E-6	-2.89E-4	6.18E-4
EP-T	mol N eq	6.79E-3	3.90E-4	5.05E-4	7.68E-3	2.46E-4	1.65E-3	1.21E-5	-3.11E-3	6.48E-3
POCP	kg NMVOC eq	2.44E-3	1.11E-4	1.43E-4	2.69E-3	7.03E-5	4.93E-4	4.13E-6	-1.06E-3	2.20E-3
ADP-mm	kg Sb eq	2.08E-5	4.38E-7	6.66E-7	2.19E-5	2.83E-7	2.41E-6	3.00E-9	-8.77E-6	1.58E-5
ADP-f	MJ	2.05E+1	2.61E-1	3.39E-1	2.11E+1	1.68E-1	1.68E+0	9.15E-3	-1.04E+1	1.25E+1
WDP	m3 depriv.	1.28E+0	9.33E-4	2.29E-1	1.51E+0	5.16E-4	6.59E-2	5.11E-5	-6.19E-1	9.56E-1
PM	disease inc.	2.82E-8	1.55E-9	2.48E-9	3.22E-8	9.88E-10	7.64E-9	6.27E-11	-1.07E-8	3.02E-8
IR	kBq U-235 eq	4.09E-2	1.09E-3	6.12E-4	4.26E-2	7.35E-4	5.88E-3	4.20E-5	-2.00E-2	2.92E-2
ETP-fw	CTUe	1.28E+1	2.33E-1	5.65E-1	1.36E+1	1.36E-1	1.27E+1	1.41E-1	-6.20E+0	2.05E+1
HTP-c	CTUh	5.20E-10	7.54E-12	1.93E-11	5.47E-10	4.86E-12	1.84E-10	2.40E-13	-2.30E-10	5.07E-10
HTP-nc	CTUh	1.65E-8	2.54E-10	5.90E-10	1.74E-8	1.63E-10	4.46E-9	2.70E-11	-7.93E-9	1.41E-8
SQP	Pt	7.47E+0	2.26E-1	2.54E-2	7.72E+0	1.44E-1	1.04E+0	2.33E-2	-2.19E+0	6.73E+0

Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.70E+0	3.26E-3	1.02E+0	2.72E+0	2.41E-3	1.21E-1	3.35E-4	-6.69E-1	2.18E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.70E+0	3.26E-3	1.02E+0	2.72E+0	2.41E-3	1.21E-1	3.35E-4	-6.69E-1	2.18E+0
PENRE	MJ	2.20E+1	2.77E-1	3.67E-1	2.27E+1	1.78E-1	1.79E+0	9.71E-3	-1.13E+1	1.34E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	2.20E+1	2.77E-1	3.67E-1	2.27E+1	1.78E-1	1.79E+0	9.71E-3	-1.13E+1	1.34E+1
PET	MJ	2.37E+1	2.80E-1	1.39E+0	2.54E+1	1.81E-1	1.91E+0	1.00E-2	-1.19E+1	1.56E+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	1.38E-2	3.18E-5	5.40E-3	1.92E-2	1.90E-5	1.80E-3	1.12E-5	-6.48E-3	1.46E-2
Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.54E-5	6.61E-7	4.75E-7	1.65E-5	4.30E-7	2.70E-6	1.10E-8	-8.66E-6	1.10E-5
NHWD	kg	7.44E-2	1.65E-2	6.85E-4	9.16E-2	1.04E-2	6.22E-2	4.16E-2	-3.33E-2	1.73E-1
RWD	kg	3.59E-5	1.71E-6	8.53E-7	3.85E-5	1.14E-6	6.29E-6	5.97E-8	-1.77E-5	2.83E-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