

Environmental Profile

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

Ecochain v3.5.71



Product: 3071146 - WavSpec SN4 PVC-U Pipe EN13476 F 160 L=6
 Unit: 1 piece
 Manufacturer: Wavin - IE - Balbriggan - Verified

LCA standard: EN15804+A2 (2019)
 Standard database: Worldwide - Ecoinvent v 3.6 Cut-Off
 Externally verified: Yes
 Issue date: 27-01-2023
 End of validity: 27-01-2028
 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 - IE - Balbriggan - 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

A1 Raw material supply A2 Transport A3 Manufacturing

Construction process stage

A4 Transport gate to site
 A5 Assembly / Construction installation process

Use stage

B1 Use B2 Maintenance B3 Repair B4 Replacement B5 Refurbishment
 B6 Operational energy use B7 Operational water use

End-of-Life stage

C1 De-construction demolition C2 Transport C3 Waste processing
 C4 Disposal

Benefits and loads beyond the system boundaries

D Reuse- Recovery- Recycling- potential

Environmental impacts and parameters

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	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	2.42E+1	4.87E-1	2.27E+0	2.70E+1	3.71E-1	1.01E+1	1.01E-1	-1.35E+1	2.41E+1
GWP-f	kg CO2 eq	2.48E+1	4.87E-1	7.67E-1	2.60E+1	3.70E-1	9.31E+0	1.01E-1	-1.34E+1	2.25E+1
GWP-b	kg CO2 eq	-6.13E-1	1.50E-4	1.50E+0	8.92E-1	2.25E-4	7.97E-1	1.30E-4	-9.37E-2	1.60E+0
GWP-luluc	kg CO2 eq	1.87E-2	2.25E-4	2.61E-4	1.92E-2	1.31E-4	4.25E-3	2.74E-6	-8.80E-3	1.48E-2
ODP	kg CFC11 eq	1.34E-5	1.07E-7	8.67E-8	1.36E-5	8.53E-8	1.13E-6	4.17E-9	-6.71E-6	8.07E-6
AP	mol H+ eq	1.13E-1	7.17E-3	6.08E-3	1.26E-1	2.11E-3	1.98E-2	9.92E-5	-5.11E-2	9.73E-2
EP-fw	kg P eq	1.08E-3	3.32E-6	1.44E-5	1.10E-3	3.05E-6	1.41E-4	1.23E-7	-4.96E-4	7.45E-4
EP-m	kg N eq	1.91E-2	1.97E-3	8.79E-4	2.19E-2	7.55E-4	4.83E-3	6.18E-5	-8.88E-3	1.87E-2
EP-T	mol N eq	2.04E-1	2.19E-2	1.74E-2	2.43E-1	8.32E-3	5.32E-2	3.97E-4	-9.51E-2	2.10E-1
POCP	kg NMVOC eq	7.17E-2	5.86E-3	2.52E-3	8.01E-2	2.38E-3	1.60E-2	1.35E-4	-3.28E-2	6.58E-2
ADP-mm	kg Sb eq	7.43E-4	9.54E-6	2.47E-5	7.77E-4	9.58E-6	7.82E-5	9.80E-8	-2.75E-4	5.91E-4
ADP-f	MJ	6.29E+2	7.05E+0	9.84E+0	6.46E+2	5.69E+0	5.48E+1	3.01E-1	-3.25E+2	3.81E+2
WDP	m3 depriv.	4.02E+1	1.82E-2	3.64E-1	4.06E+1	1.74E-2	2.09E+0	1.63E-3	-1.93E+1	2.34E+1
PM	disease inc.	7.97E-7	3.42E-8	4.91E-8	8.80E-7	3.34E-8	2.51E-7	2.06E-9	-3.28E-7	8.38E-7
IR	kBq U-235 eq	1.30E+0	3.06E-2	9.79E-3	1.34E+0	2.48E-2	1.90E-1	1.38E-3	-6.25E-1	9.29E-1
ETP-fw	CTUe	4.05E+2	5.37E+0	2.05E+1	4.30E+2	4.62E+0	3.96E+2	4.35E+0	-1.91E+2	6.45E+2
HTP-c	CTUh	1.63E-8	2.34E-10	8.98E-10	1.75E-8	1.64E-10	5.95E-9	7.69E-12	-7.11E-9	1.65E-8
HTP-nc	CTUh	5.20E-7	5.86E-9	2.42E-8	5.50E-7	5.50E-9	1.42E-7	8.39E-10	-2.46E-7	4.52E-7
SQP	Pt	1.51E+2	4.52E+0	3.54E+0	1.59E+2	4.86E+0	3.47E+1	7.61E-1	-5.01E+1	1.49E+2
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	4.04E+1	8.50E-2	2.51E+1	6.56E+1	8.16E-2	3.88E+0	1.07E-2	-1.72E+1	5.23E+1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	4.04E+1	8.50E-2	2.51E+1	6.56E+1	8.16E-2	3.88E+0	1.07E-2	-1.72E+1	5.23E+1
PENRE	MJ	6.75E+2	7.48E+0	1.08E+1	6.93E+2	6.04E+0	5.83E+1	3.19E-1	-3.50E+2	4.07E+2
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	6.75E+2	7.48E+0	1.08E+1	6.93E+2	6.04E+0	5.83E+1	3.19E-1	-3.50E+2	4.07E+2
PET	MJ	7.15E+2	7.57E+0	3.59E+1	7.59E+2	6.12E+0	6.22E+1	3.30E-1	-3.68E+2	4.60E+2
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	4.31E-1	6.68E-4	8.94E-3	4.41E-1	6.43E-4	5.73E-2	3.69E-4	-2.02E-1	2.96E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	4.92E-4	1.46E-5	7.95E-3	8.45E-3	1.45E-5	8.82E-5	3.62E-7	-2.69E-4	8.29E-3
NHWD	kg	2.38E+0	3.12E-1	9.73E-2	2.79E+0	3.52E-1	2.05E+0	1.41E+0	-1.03E+0	5.57E+0
RWD	kg	1.14E-3	4.83E-5	1.26E-5	1.20E-3	3.87E-5	2.06E-4	1.97E-6	-5.51E-4	8.98E-4
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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