

Environmental Profile

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

Ecochain v3.5.71



Product: 3066980 - WavSpec SN4 PVC-U Pipe EN13476 F 244 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

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

Results

Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	5.57E+1	1.14E+0	5.12E+0	6.19E+1	8.63E-1	2.44E+1	2.35E-1	-3.14E+1	5.60E+1
GWP-f	kg CO2 eq	5.79E+1	1.14E+0	1.73E+0	6.07E+1	8.62E-1	2.17E+1	2.35E-1	-3.11E+1	5.24E+1
GWP-b	kg CO2 eq	-2.23E+0	3.50E-4	3.39E+0	1.16E+0	5.24E-4	2.66E+0	3.02E-4	-2.18E-1	3.60E+0
GWP-luluc	kg CO2 eq	4.41E-2	5.27E-4	5.89E-4	4.52E-2	3.05E-4	9.90E-3	6.37E-6	-2.06E-2	3.48E-2
ODP	kg CFC11 eq	3.12E-5	2.52E-7	1.95E-7	3.16E-5	1.99E-7	2.62E-6	9.70E-9	-1.56E-5	1.88E-5
AP	mol H+ eq	2.65E-1	1.69E-2	1.37E-2	2.95E-1	4.91E-3	4.61E-2	2.31E-4	-1.19E-1	2.27E-1
EP-fw	kg P eq	2.52E-3	7.77E-6	3.25E-5	2.56E-3	7.10E-6	3.28E-4	2.87E-7	-1.16E-3	1.74E-3
EP-m	kg N eq	4.47E-2	4.63E-3	1.98E-3	5.13E-2	1.76E-3	1.13E-2	1.44E-4	-2.08E-2	4.37E-2
EP-T	mol N eq	4.78E-1	5.14E-2	3.93E-2	5.69E-1	1.94E-2	1.24E-1	9.26E-4	-2.23E-1	4.90E-1
POCP	kg NMVOC eq	1.68E-1	1.38E-2	5.69E-3	1.87E-1	5.54E-3	3.74E-2	3.14E-4	-7.67E-2	1.54E-1
ADP-mm	kg Sb eq	1.73E-3	2.24E-5	5.57E-5	1.81E-3	2.23E-5	1.82E-4	2.28E-7	-6.40E-4	1.37E-3
ADP-f	MJ	1.47E+3	1.65E+1	2.22E+1	1.51E+3	1.32E+1	1.28E+2	7.01E-1	-7.58E+2	8.89E+2
WDP	m3 depriv.	9.38E+1	4.26E-2	8.20E-1	9.46E+1	4.06E-2	4.87E+0	3.79E-3	-4.50E+1	5.46E+1
PM	disease inc.	1.90E-6	8.01E-8	1.11E-7	2.09E-6	7.79E-8	5.85E-7	4.79E-9	-7.71E-7	1.99E-6
IR	kBq U-235 eq	3.03E+0	7.19E-2	2.21E-2	3.12E+0	5.79E-2	4.44E-1	3.22E-3	-1.46E+0	2.17E+0
ETP-fw	CTUe	9.46E+2	1.26E+1	4.63E+1	1.00E+3	1.07E+1	9.23E+2	1.01E+1	-4.48E+2	1.50E+3
HTP-c	CTUh	3.83E-8	5.50E-10	2.02E-9	4.08E-8	3.83E-10	1.39E-8	1.79E-11	-1.66E-8	3.85E-8
HTP-nc	CTUh	1.21E-6	1.37E-8	5.45E-8	1.28E-6	1.28E-8	3.31E-7	1.95E-9	-5.74E-7	1.05E-6
SQP	Pt	4.24E+2	1.06E+1	7.97E+0	4.42E+2	1.13E+1	8.08E+1	1.77E+0	-1.32E+2	4.04E+2
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.05E+2	1.99E-1	5.66E+1	1.62E+2	1.90E-1	9.04E+0	2.50E-2	-4.32E+1	1.28E+2
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.05E+2	1.99E-1	5.66E+1	1.62E+2	1.90E-1	9.04E+0	2.50E-2	-4.32E+1	1.28E+2
PENRE	MJ	1.57E+3	1.75E+1	2.42E+1	1.62E+3	1.41E+1	1.36E+2	7.44E-1	-8.16E+2	9.50E+2
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.57E+3	1.75E+1	2.42E+1	1.62E+3	1.41E+1	1.36E+2	7.44E-1	-8.16E+2	9.50E+2
PET	MJ	1.68E+3	1.77E+1	8.09E+1	1.78E+3	1.42E+1	1.45E+2	7.69E-1	-8.60E+2	1.08E+3
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	1.01E+0	1.57E-3	2.01E-2	1.03E+0	1.50E-3	1.34E-1	8.59E-4	-4.72E-1	6.92E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.15E-3	3.42E-5	1.79E-2	1.91E-2	3.39E-5	2.06E-4	8.42E-7	-6.27E-4	1.87E-2
NHWD	kg	5.57E+0	7.31E-1	2.19E-1	6.52E+0	8.21E-1	4.79E+0	3.28E+0	-2.41E+0	1.30E+1
RWD	kg	2.67E-3	1.13E-4	2.84E-5	2.81E-3	9.00E-5	4.80E-4	4.59E-6	-1.28E-3	2.10E-3
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