

# Environmental Profile

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

Ecochain v3.5.71



Product: 3075198 - WavSpec SN8 PVC-U Pipe EN13476 R 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	3.81E+1	5.68E-1	3.68E+0	4.23E+1	5.95E-1	1.57E+1	1.61E-1	-2.16E+1	3.71E+1
GWP-f	kg CO2 eq	3.85E+1	5.67E-1	1.24E+0	4.03E+1	5.94E-1	1.49E+1	1.61E-1	-2.15E+1	3.45E+1
GWP-b	kg CO2 eq	-4.93E-1	2.25E-4	2.43E+0	1.94E+0	3.61E-4	7.91E-1	2.08E-4	-1.51E-1	2.58E+0
GWP-luluc	kg CO2 eq	3.01E-2	2.43E-4	4.23E-4	3.08E-2	2.10E-4	6.88E-3	4.39E-6	-1.41E-2	2.38E-2
ODP	kg CFC11 eq	2.18E-5	1.27E-7	1.40E-7	2.21E-5	1.37E-7	1.83E-6	6.68E-9	-1.08E-5	1.33E-5
AP	mol H+ eq	1.74E-1	6.91E-3	9.84E-3	1.91E-1	3.38E-3	3.19E-2	1.59E-4	-8.21E-2	1.44E-1
EP-fw	kg P eq	1.70E-3	4.09E-6	2.33E-5	1.72E-3	4.89E-6	2.28E-4	1.98E-7	-7.97E-4	1.16E-3
EP-m	kg N eq	2.91E-2	1.98E-3	1.42E-3	3.25E-2	1.21E-3	7.77E-3	9.67E-5	-1.42E-2	2.74E-2
EP-T	mol N eq	3.16E-1	2.19E-2	2.82E-2	3.66E-1	1.33E-2	8.56E-2	6.38E-4	-1.52E-1	3.14E-1
POCP	kg NMVOC eq	1.10E-1	5.93E-3	4.08E-3	1.20E-1	3.81E-3	2.58E-2	2.16E-4	-5.27E-2	9.67E-2
ADP-mm	kg Sb eq	1.17E-3	1.21E-5	4.00E-5	1.22E-3	1.54E-5	1.26E-4	1.57E-7	-4.41E-4	9.23E-4
ADP-f	MJ	9.98E+2	8.36E+0	1.59E+1	1.02E+3	9.12E+0	8.84E+1	4.83E-1	-5.23E+2	5.97E+2
WDP	m3 depriv.	6.52E+1	2.27E-2	5.88E-1	6.58E+1	2.80E-2	3.39E+0	2.60E-3	-3.11E+1	3.81E+1
PM	disease inc.	1.20E-6	4.31E-8	7.94E-8	1.32E-6	5.36E-8	4.04E-7	3.31E-9	-5.25E-7	1.26E-6
IR	kBq U-235 eq	2.12E+0	3.64E-2	1.58E-2	2.17E+0	3.99E-2	3.08E-1	2.22E-3	-1.01E+0	1.52E+0
ETP-fw	CTUe	6.51E+2	6.49E+0	3.32E+1	6.91E+2	7.41E+0	6.45E+2	7.09E+0	-3.05E+2	1.05E+3
HTP-c	CTUh	2.60E-8	2.66E-10	1.45E-9	2.78E-8	2.64E-10	9.53E-9	1.23E-11	-1.14E-8	2.61E-8
HTP-nc	CTUh	8.39E-7	7.28E-9	3.91E-8	8.86E-7	8.83E-9	2.30E-7	1.36E-9	-3.95E-7	7.31E-7
SQP	Pt	1.99E+2	5.89E+0	5.72E+0	2.10E+2	7.80E+0	5.57E+1	1.22E+0	-7.11E+1	2.04E+2
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	5.86E+1	1.06E-1	4.06E+1	9.93E+1	1.31E-1	6.28E+0	1.72E-2	-2.58E+1	8.00E+1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	5.86E+1	1.06E-1	4.06E+1	9.93E+1	1.31E-1	6.28E+0	1.72E-2	-2.58E+1	8.00E+1
PENRE	MJ	1.07E+3	8.87E+0	1.74E+1	1.10E+3	9.68E+0	9.41E+1	5.13E-1	-5.64E+2	6.37E+2
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.07E+3	8.87E+0	1.74E+1	1.10E+3	9.68E+0	9.41E+1	5.13E-1	-5.64E+2	6.37E+2
PET	MJ	1.13E+3	8.98E+0	5.80E+1	1.20E+3	9.81E+0	1.00E+2	5.30E-1	-5.89E+2	7.17E+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	6.92E-1	8.36E-4	1.45E-2	7.07E-1	1.03E-3	9.28E-2	5.92E-4	-3.26E-1	4.75E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	7.97E-4	1.85E-5	1.29E-2	1.37E-2	2.33E-5	1.42E-4	5.80E-7	-4.32E-4	1.34E-2
NHWD	kg	3.82E+0	4.14E-1	1.57E-1	4.39E+0	5.65E-1	3.29E+0	2.26E+0	-1.66E+0	8.85E+0
RWD	kg	1.87E-3	5.71E-5	2.04E-5	1.95E-3	6.20E-5	3.32E-4	3.16E-6	-8.86E-4	1.46E-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



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