

# Environmental Profile

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

Ecochain v3.5.71



Product: 3075231 - WavSpec SN8 PVC-U Pipe EN13476 R 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

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# Results

Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	8.90E+1	1.35E+0	8.66E+0	9.90E+1	1.40E+0	3.78E+1	3.80E-1	-5.10E+1	8.76E+1
GWP-f	kg CO2 eq	9.09E+1	1.34E+0	2.92E+0	9.52E+1	1.40E+0	3.51E+1	3.80E-1	-5.06E+1	8.15E+1
GWP-b	kg CO2 eq	-1.95E+0	5.31E-4	5.73E+0	3.79E+0	8.50E-4	2.65E+0	4.90E-4	-3.56E-1	6.08E+0
GWP-luluc	kg CO2 eq	7.14E-2	5.76E-4	9.96E-4	7.30E-2	4.95E-4	1.62E-2	1.03E-5	-3.33E-2	5.64E-2
ODP	kg CFC11 eq	5.15E-5	3.00E-7	3.30E-7	5.21E-5	3.23E-7	4.31E-6	1.57E-8	-2.54E-5	3.13E-5
AP	mol H+ eq	4.10E-1	1.64E-2	2.32E-2	4.50E-1	7.97E-3	7.52E-2	3.75E-4	-1.94E-1	3.40E-1
EP-fw	kg P eq	4.00E-3	9.68E-6	5.50E-5	4.07E-3	1.15E-5	5.37E-4	4.66E-7	-1.88E-3	2.74E-3
EP-m	kg N eq	6.89E-2	4.70E-3	3.35E-3	7.69E-2	2.85E-3	1.83E-2	2.28E-4	-3.36E-2	6.47E-2
EP-T	mol N eq	7.48E-1	5.21E-2	6.65E-2	8.67E-1	3.14E-2	2.02E-1	1.50E-3	-3.60E-1	7.42E-1
POCP	kg NMVOC eq	2.59E-1	1.41E-2	9.62E-3	2.83E-1	8.99E-3	6.08E-2	5.09E-4	-1.24E-1	2.29E-1
ADP-mm	kg Sb eq	2.76E-3	2.87E-5	9.42E-5	2.88E-3	3.62E-5	2.98E-4	3.71E-7	-1.04E-3	2.18E-3
ADP-f	MJ	2.35E+3	1.98E+1	3.75E+1	2.41E+3	2.15E+1	2.08E+2	1.14E+0	-1.23E+3	1.41E+3
WDP	m3 depriv.	1.54E+2	5.38E-2	1.39E+0	1.55E+2	6.59E-2	7.99E+0	6.11E-3	-7.32E+1	8.99E+1
PM	disease inc.	2.87E-6	1.02E-7	1.87E-7	3.16E-6	1.26E-7	9.52E-7	7.79E-9	-1.24E-6	3.00E-6
IR	kBq U-235 eq	5.00E+0	8.62E-2	3.73E-2	5.12E+0	9.39E-2	7.25E-1	5.22E-3	-2.37E+0	3.58E+0
ETP-fw	CTUe	1.54E+3	1.54E+1	7.82E+1	1.63E+3	1.74E+1	1.52E+3	1.67E+1	-7.22E+2	2.46E+3
HTP-c	CTUh	6.17E-8	6.31E-10	3.42E-9	6.57E-8	6.21E-10	2.25E-8	2.91E-11	-2.69E-8	6.19E-8
HTP-nc	CTUh	1.98E-6	1.72E-8	9.22E-8	2.09E-6	2.08E-8	5.41E-7	3.21E-9	-9.31E-7	1.72E-6
SQP	Pt	5.40E+2	1.39E+1	1.35E+1	5.67E+2	1.84E+1	1.31E+2	2.88E+0	-1.83E+2	5.37E+2
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.49E+2	2.52E-1	9.57E+1	2.45E+2	3.08E-1	1.48E+1	4.06E-2	-6.38E+1	1.96E+2
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.49E+2	2.52E-1	9.57E+1	2.45E+2	3.08E-1	1.48E+1	4.06E-2	-6.38E+1	1.96E+2
PENRE	MJ	2.52E+3	2.10E+1	4.10E+1	2.59E+3	2.28E+1	2.22E+2	1.21E+0	-1.33E+3	1.50E+3
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	2.52E+3	2.10E+1	4.10E+1	2.59E+3	2.28E+1	2.22E+2	1.21E+0	-1.33E+3	1.50E+3
PET	MJ	2.67E+3	2.13E+1	1.37E+2	2.83E+3	2.31E+1	2.37E+2	1.25E+0	-1.39E+3	1.70E+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	1.63E+0	1.98E-3	3.41E-2	1.67E+0	2.43E-3	2.19E-1	1.39E-3	-7.68E-1	1.12E+0

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.88E-3	4.38E-5	3.03E-2	3.22E-2	5.49E-5	3.35E-4	1.37E-6	-1.02E-3	3.16E-2
NHWD	kg	9.04E+0	9.79E-1	3.71E-1	1.04E+1	1.33E+0	7.76E+0	5.33E+0	-3.91E+0	2.09E+1
RWD	kg	4.43E-3	1.35E-4	4.81E-5	4.61E-3	1.46E-4	7.82E-4	7.45E-6	-2.09E-3	3.46E-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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