

# Environmental Profile

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

Ecochain v3.5.71



Product: 3037224 - OsmaS PVCU Pipe WT 110 L=0.6 P/E  
 Unit: 1 piece  
 Manufacturer: Wavin - UK - Chippenham - Verified

LCA standard: EN15804+A2 (2019)  
 Standard database: Worldwide - Ecoinvent v 3.6 Cut-Off  
 Externally verified: Yes  
 Issue date: 09-02-2023  
 End of validity: 09-02-2028  
 Verifier: Martijn van Hövell - SGS Search



The Wavin Osma soil range offers an exceptional choice of pipe & fittings including brackets, bends, junctions, access fittings, and terminations. To connect to your soil system, we offer push-fit & solvent weld waste ranges, together with trap, overflow & condensate ranges to cover all installation needs.

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 - UK - Chippenham - 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	☑	☑	☑	☑									

## 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	1.18E+0	4.78E-2	1.23E-1	1.35E+0	2.54E-2	6.66E-1	7.36E-3	-4.53E-1	1.59E+0
GWP-f	kg CO2 eq	1.14E+0	4.78E-2	1.18E-1	1.30E+0	2.54E-2	6.66E-1	7.36E-3	-4.50E-1	1.55E+0
GWP-b	kg CO2 eq	3.69E-2	-4.23E-6	4.90E-3	4.18E-2	1.54E-5	-6.81E-4	9.41E-6	-2.43E-3	3.87E-2
GWP-luluc	kg CO2 eq	1.02E-3	2.92E-5	7.13E-5	1.12E-3	8.98E-6	3.03E-4	1.98E-7	-2.25E-4	1.21E-3
ODP	kg CFC11 eq	5.37E-7	9.93E-9	1.36E-8	5.61E-7	5.85E-9	8.19E-8	2.91E-10	-1.82E-7	4.67E-7
AP	mol H+ eq	6.98E-3	1.25E-3	5.69E-4	8.80E-3	1.45E-4	1.40E-3	7.01E-6	-1.38E-3	8.98E-3
EP-fw	kg P eq	5.67E-5	2.42E-7	1.54E-6	5.85E-5	2.09E-7	1.01E-5	8.92E-9	-1.28E-5	5.61E-5
EP-m	kg N eq	9.31E-4	3.15E-4	1.36E-4	1.38E-3	5.17E-5	3.39E-4	4.28E-6	-2.50E-4	1.53E-3
EP-T	mol N eq	9.93E-3	3.50E-3	1.42E-3	1.49E-2	5.70E-4	3.73E-3	2.80E-5	-2.67E-3	1.65E-2
POCP	kg NMVOC eq	3.37E-3	9.13E-4	7.24E-4	5.01E-3	1.63E-4	1.12E-3	9.55E-6	-9.27E-4	5.37E-3
ADP-mm	kg Sb eq	3.18E-4	5.63E-7	2.03E-6	3.21E-4	6.56E-7	5.54E-6	6.97E-9	-6.98E-6	3.20E-4
ADP-f	MJ	2.70E+1	6.40E-1	1.30E+0	2.89E+1	3.90E-1	3.86E+0	2.12E-2	-1.01E+1	2.31E+1
WDP	m3 depriv.	1.71E+0	1.21E-3	4.52E-2	1.76E+0	1.20E-3	1.51E-1	1.26E-4	-4.97E-1	1.42E+0
PM	disease inc.	4.18E-8	2.14E-9	3.67E-9	4.76E-8	2.29E-9	1.75E-8	1.45E-10	-8.50E-9	5.90E-8
IR	kBq U-235 eq	7.12E-2	2.76E-3	3.93E-3	7.79E-2	1.70E-3	1.35E-2	9.71E-5	-1.64E-2	7.68E-2
ETP-fw	CTUe	2.45E+1	4.41E-1	2.71E+0	2.76E+1	3.16E-1	2.91E+1	3.22E-1	-4.95E+0	5.24E+1
HTP-c	CTUh	1.06E-9	2.57E-11	1.07E-10	1.20E-9	1.13E-11	4.20E-10	5.60E-13	-1.87E-10	1.44E-9
HTP-nc	CTUh	2.67E-8	4.07E-10	9.12E-9	3.62E-8	3.77E-10	1.02E-8	6.18E-11	-6.33E-9	4.06E-8
SQP	Pt	4.71E+0	2.11E-1	3.75E-1	5.29E+0	3.33E-1	2.40E+0	5.38E-2	-9.29E-1	7.15E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.66E+0	5.63E-3	4.76E+0	6.43E+0	5.59E-3	2.78E-1	7.68E-4	-3.64E-1	6.35E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.66E+0	5.63E-3	4.76E+0	6.43E+0	5.59E-3	2.78E-1	7.68E-4	-3.64E-1	6.35E+0
PENRE	MJ	2.89E+1	6.79E-1	1.38E+0	3.10E+1	4.14E-1	4.10E+0	2.25E-2	-1.10E+1	2.45E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	2.89E+1	6.79E-1	1.38E+0	3.10E+1	4.14E-1	4.10E+0	2.25E-2	-1.10E+1	2.45E+1
PET	MJ	3.06E+1	6.85E-1	6.14E+0	3.74E+1	4.19E-1	4.38E+0	2.32E-2	-1.13E+1	3.09E+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	2.16E-2	4.39E-5	1.22E-3	2.29E-2	4.41E-5	4.13E-3	2.59E-5	-5.29E-3	2.18E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	5.85E-5	8.68E-7	1.86E-5	7.80E-5	9.96E-7	6.21E-6	2.56E-8	-9.03E-6	7.62E-5
NHWD	kg	1.95E-1	1.18E-2	3.68E-3	2.10E-1	2.41E-2	1.41E-1	9.65E-2	-2.68E-2	4.45E-1
RWD	kg	6.22E-5	4.42E-6	4.93E-6	7.15E-5	2.65E-6	1.44E-5	1.38E-7	-1.47E-5	7.40E-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



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