

Environmental Profile

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

Ecochain v3.5.71



Product: 3040905 - OsmaS PVCU Bend 87.5° WT 110 D/S
 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	1.12E+0	1.68E-2	1.21E-1	1.25E+0	1.34E-2	3.88E-1	6.08E-3	-5.36E-1	1.12E+0
GWP-f	kg CO2 eq	1.08E+0	1.68E-2	1.19E-1	1.21E+0	1.34E-2	3.88E-1	6.08E-3	-5.32E-1	1.09E+0
GWP-b	kg CO2 eq	3.44E-2	1.01E-5	2.45E-3	3.69E-2	8.14E-6	-5.39E-4	4.55E-6	-3.90E-3	3.25E-2
GWP-luluc	kg CO2 eq	3.25E-3	5.97E-6	1.10E-4	3.36E-3	4.74E-6	7.53E-5	2.32E-7	-3.57E-4	3.08E-3
ODP	kg CFC11 eq	9.45E-8	3.86E-9	9.78E-9	1.08E-7	3.09E-9	9.84E-9	1.66E-10	-2.70E-7	-1.49E-7
AP	mol H+ eq	1.06E-2	9.88E-5	6.63E-4	1.14E-2	7.63E-5	4.02E-4	4.52E-6	-2.12E-3	9.76E-3
EP-fw	kg P eq	1.11E-4	1.38E-7	1.68E-6	1.13E-4	1.10E-7	2.17E-6	8.86E-9	-2.04E-5	9.46E-5
EP-m	kg N eq	2.10E-3	3.49E-5	1.24E-4	2.25E-3	2.73E-5	1.15E-4	1.90E-6	-3.61E-4	2.04E-3
EP-T	mol N eq	2.61E-2	3.85E-4	1.36E-3	2.78E-2	3.01E-4	1.26E-3	1.70E-5	-3.84E-3	2.55E-2
POCP	kg NMVOC eq	6.18E-3	1.10E-4	5.69E-4	6.86E-3	8.60E-5	3.99E-4	6.18E-6	-1.36E-3	5.99E-3
ADP-mm	kg Sb eq	2.20E-2	4.32E-7	3.17E-6	2.20E-2	3.47E-7	1.64E-6	5.56E-9	-1.13E-5	2.19E-2
ADP-f	MJ	1.79E+1	2.57E-1	1.32E+0	1.95E+1	2.06E-1	1.32E+0	1.26E-2	-1.35E+1	7.56E+0
WDP	m3 depriv.	1.16E+0	7.87E-4	3.82E-2	1.19E+0	6.31E-4	2.45E-2	4.96E-4	-8.00E-1	4.20E-1
PM	disease inc.	5.06E-8	1.51E-9	4.59E-9	5.67E-8	1.21E-9	6.70E-9	8.68E-11	-1.37E-8	5.10E-8
IR	kBq U-235 eq	1.05E-1	1.12E-3	3.04E-3	1.09E-1	8.99E-4	3.95E-3	5.05E-5	-2.56E-2	8.84E-2
ETP-fw	CTUe	2.11E+2	2.09E-1	3.64E+0	2.15E+2	1.67E-1	1.50E+0	1.12E-2	-7.61E+0	2.09E+2
HTP-c	CTUh	5.03E-9	7.45E-12	1.43E-10	5.19E-9	5.94E-12	4.23E-10	6.30E-13	-2.90E-10	5.32E-9
HTP-nc	CTUh	1.48E-7	2.48E-10	6.80E-9	1.55E-7	1.99E-10	2.83E-9	8.89E-12	-1.01E-8	1.48E-7
SQP	Pt	8.56E+0	2.19E-1	4.70E-1	9.25E+0	1.76E-1	1.05E+0	3.01E-2	-1.40E+0	9.10E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	2.15E+0	3.68E-3	7.85E+0	1.00E+1	2.95E-3	6.44E-2	2.48E-4	-5.80E-1	9.49E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	2.15E+0	3.68E-3	7.85E+0	1.00E+1	2.95E-3	6.44E-2	2.48E-4	-5.80E-1	9.49E+0
PENRE	MJ	1.91E+1	2.73E-1	1.40E+0	2.08E+1	2.18E-1	1.40E+0	1.34E-2	-1.45E+1	7.90E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.91E+1	2.73E-1	1.40E+0	2.08E+1	2.18E-1	1.40E+0	1.34E-2	-1.45E+1	7.90E+0
PET	MJ	2.12E+1	2.77E-1	9.25E+0	3.08E+1	2.21E-1	1.47E+0	1.36E-2	-1.51E+1	1.74E+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	3.34E-2	2.90E-5	1.14E-3	3.46E-2	2.33E-5	7.42E-4	1.34E-5	-8.40E-3	2.69E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	2.79E-3	6.55E-7	9.85E-6	2.80E-3	5.26E-7	2.37E-6	1.89E-8	-1.03E-5	2.79E-3
NHWD	kg	1.91E-1	1.59E-2	2.06E-3	2.09E-1	1.27E-2	6.71E-2	5.10E-2	-4.23E-2	2.98E-1
RWD	kg	8.06E-5	1.75E-6	2.61E-6	8.50E-5	1.40E-6	5.01E-6	7.60E-8	-2.24E-5	6.90E-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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