

Environmental Profile

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

Ecochain v3.5.71



Product: 3032482 - OsmaS PVCU Bend 45° E 110 D/SW
Unit: 1 piece
Manufacturer: Wavin - UK - Chippenham - Verified

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.

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



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	MND	MND	MND	MND	MND	MND	MND	MND	MND	☑	☑	☑	☑
Product stage					Use stage							End-of-Life stage				
A1 Raw material supply A2 Transport A3 Manufacturing					B1 Use B2 Maintenance B3 Repair B4 Replacement B5 Refurbishment B6 Operational energy use B7 Operational water use							C1 De-construction demolition C2 Transport C3 Waste processing C4 Disposal				
Construction process stage					Benefits and loads beyond the system boundaries											
A4 Transport gate to site A5 Assembly / Construction installation process					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	7.42E-1	6.76E-3	5.10E-2	8.00E-1	8.93E-3	2.58E-1	4.05E-3	-3.53E-1	7.18E-1
GWP-f	kg CO2 eq	7.13E-1	6.76E-3	4.93E-2	7.69E-1	8.92E-3	2.58E-1	4.05E-3	-3.50E-1	6.91E-1
GWP-b	kg CO2 eq	2.61E-2	4.10E-6	1.62E-3	2.77E-2	5.42E-6	-3.59E-4	2.94E-6	-2.66E-3	2.47E-2
GWP-luluc	kg CO2 eq	2.37E-3	2.39E-6	3.64E-5	2.40E-3	3.16E-6	5.01E-5	1.64E-7	-2.46E-4	2.21E-3
ODP	kg CFC11 eq	5.65E-8	1.56E-9	5.00E-9	6.31E-8	2.06E-9	6.54E-9	1.11E-10	-1.89E-7	-1.17E-7
AP	mol H+ eq	7.43E-3	3.85E-5	2.53E-4	7.72E-3	5.08E-5	2.67E-4	3.06E-6	-1.42E-3	6.62E-3
EP-fw	kg P eq	7.99E-5	5.56E-8	6.67E-7	8.06E-5	7.34E-8	1.45E-6	6.19E-9	-1.40E-5	6.81E-5
EP-m	kg N eq	1.49E-3	1.38E-5	5.45E-5	1.56E-3	1.82E-5	7.63E-5	1.03E-6	-2.42E-4	1.42E-3
EP-T	mol N eq	1.86E-2	1.52E-4	5.83E-4	1.94E-2	2.00E-4	8.36E-4	1.14E-5	-2.57E-3	1.78E-2
POCP	kg NMVOC eq	4.25E-3	4.34E-5	2.75E-4	4.57E-3	5.73E-5	2.65E-4	4.15E-6	-8.96E-4	4.00E-3
ADP-mm	kg Sb eq	1.63E-2	1.75E-7	1.04E-6	1.63E-2	2.31E-7	1.09E-6	3.83E-9	-7.80E-6	1.63E-2
ADP-f	MJ	1.05E+1	1.04E-1	5.44E-1	1.11E+1	1.37E-1	8.76E-1	8.44E-3	-8.75E+0	3.40E+0
WDP	m3 depriv.	7.96E-1	3.18E-4	1.76E-2	8.13E-1	4.20E-4	1.61E-2	3.64E-4	-5.50E-1	2.81E-1
PM	disease inc.	3.30E-8	6.10E-10	1.69E-9	3.53E-8	8.05E-10	4.46E-9	5.84E-11	-9.06E-9	3.15E-8
IR	kBq U-235 eq	7.19E-2	4.53E-4	1.48E-3	7.39E-2	5.99E-4	2.63E-3	3.33E-5	-1.76E-2	5.95E-2
ETP-fw	CTUe	1.56E+2	8.42E-2	1.29E+0	1.57E+2	1.11E-1	9.85E-1	6.99E-3	-5.25E+0	1.53E+2
HTP-c	CTUh	3.70E-9	3.00E-12	5.08E-11	3.75E-9	3.96E-12	3.02E-10	4.45E-13	-2.00E-10	3.86E-9
HTP-nc	CTUh	1.09E-7	1.00E-10	3.40E-9	1.13E-7	1.33E-10	1.93E-9	5.98E-12	-6.96E-9	1.08E-7
SQP	Pt	5.98E+0	8.87E-2	1.73E-1	6.25E+0	1.17E-1	6.98E-1	2.01E-2	-9.66E-1	6.11E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.50E+0	1.49E-3	2.52E+0	4.02E+0	1.97E-3	4.29E-2	1.46E-4	-3.98E-1	3.67E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.50E+0	1.49E-3	2.52E+0	4.02E+0	1.97E-3	4.29E-2	1.46E-4	-3.98E-1	3.67E+0
PENRE	MJ	1.11E+1	1.10E-1	5.78E-1	1.18E+1	1.45E-1	9.34E-1	8.97E-3	-9.40E+0	3.51E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.11E+1	1.10E-1	5.78E-1	1.18E+1	1.45E-1	9.34E-1	8.97E-3	-9.40E+0	3.51E+0
PET	MJ	1.26E+1	1.12E-1	3.10E+0	1.59E+1	1.47E-1	9.77E-1	9.12E-3	-9.80E+0	7.18E+0
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	2.34E-2	1.17E-5	4.94E-4	2.39E-2	1.55E-5	4.80E-4	8.86E-6	-5.71E-3	1.87E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	2.07E-3	2.65E-7	6.25E-6	2.08E-3	3.50E-7	1.59E-6	1.29E-8	-7.07E-6	2.07E-3
NHWD	kg	1.34E-1	6.43E-3	1.25E-3	1.41E-1	8.49E-3	4.48E-2	3.40E-2	-2.91E-2	2.00E-1
RWD	kg	5.24E-5	7.05E-7	1.65E-6	5.48E-5	9.32E-7	3.34E-6	5.06E-8	-1.54E-5	4.37E-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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