

Environmental Profile

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

Ecochain v3.5.71



Product: 3040900 - OsmaS PVCU Bend 45° GY 160 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	1.41E+0	6.07E-2	4.75E-2	1.52E+0	1.89E-2	5.16E-1	5.93E-3	-7.89E-1	1.27E+0
GWP-f	kg CO2 eq	1.40E+0	6.07E-2	4.60E-2	1.51E+0	1.89E-2	5.16E-1	5.93E-3	-7.84E-1	1.26E+0
GWP-b	kg CO2 eq	1.23E-2	-1.29E-5	1.51E-3	1.38E-2	1.15E-5	-5.19E-4	7.43E-6	-5.53E-3	7.73E-3
GWP-luluc	kg CO2 eq	1.17E-3	3.99E-5	3.39E-5	1.24E-3	6.69E-6	2.32E-4	1.59E-7	-5.13E-4	9.68E-4
ODP	kg CFC11 eq	7.78E-7	1.24E-8	4.66E-9	7.95E-7	4.36E-9	6.34E-8	2.23E-10	-3.98E-7	4.64E-7
AP	mol H+ eq	6.52E-3	1.81E-3	2.36E-4	8.57E-3	1.08E-4	1.07E-3	5.42E-6	-2.99E-3	6.76E-3
EP-fw	kg P eq	6.39E-5	2.73E-7	6.21E-7	6.48E-5	1.56E-7	7.75E-6	7.14E-9	-2.92E-5	4.34E-5
EP-m	kg N eq	1.10E-3	4.49E-4	5.08E-5	1.60E-3	3.85E-5	2.57E-4	3.31E-6	-5.17E-4	1.38E-3
EP-T	mol N eq	1.19E-2	4.99E-3	5.43E-4	1.75E-2	4.25E-4	2.84E-3	2.16E-5	-5.49E-3	1.52E-2
POCP	kg NMVOC eq	4.04E-3	1.30E-3	2.56E-4	5.59E-3	1.21E-4	8.50E-4	7.42E-6	-1.91E-3	4.66E-3
ADP-mm	kg Sb eq	8.07E-4	5.62E-7	9.71E-7	8.08E-4	4.89E-7	4.22E-6	5.45E-9	-1.62E-5	7.97E-4
ADP-f	MJ	3.56E+1	7.91E-1	5.07E-1	3.69E+1	2.90E-1	2.92E+0	1.63E-2	-1.91E+1	2.10E+1
WDP	m3 depriv.	2.36E+0	1.30E-3	1.64E-2	2.38E+0	8.90E-4	1.17E-1	1.16E-4	-1.14E+0	1.35E+0
PM	disease inc.	4.22E-8	2.22E-9	1.57E-9	4.60E-8	1.71E-9	1.32E-8	1.12E-10	-1.90E-8	4.21E-8
IR	kBq U-235 eq	7.74E-2	3.40E-3	1.38E-3	8.22E-2	1.27E-3	1.03E-2	7.44E-5	-3.68E-2	5.69E-2
ETP-fw	CTUe	3.03E+1	5.25E-1	1.20E+0	3.20E+1	2.36E-1	2.27E+1	2.52E-1	-1.10E+1	4.42E+1
HTP-c	CTUh	1.08E-9	3.37E-11	4.73E-11	1.16E-9	8.38E-12	3.30E-10	4.54E-13	-4.19E-10	1.08E-9
HTP-nc	CTUh	3.49E-8	4.49E-10	3.17E-9	3.85E-8	2.81E-10	7.88E-9	4.85E-11	-1.45E-8	3.22E-8
SQP	Pt	4.50E+0	1.73E-1	1.61E-1	4.83E+0	2.48E-1	1.80E+0	4.15E-2	-2.03E+0	4.89E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.76E+0	6.03E-3	2.35E+0	4.11E+0	4.16E-3	2.13E-1	5.96E-4	-8.29E-1	3.50E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.76E+0	6.03E-3	2.35E+0	4.11E+0	4.16E-3	2.13E-1	5.96E-4	-8.29E-1	3.50E+0
PENRE	MJ	3.82E+1	8.40E-1	5.38E-1	3.96E+1	3.08E-1	3.11E+0	1.72E-2	-2.06E+1	2.24E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	3.82E+1	8.40E-1	5.38E-1	3.96E+1	3.08E-1	3.11E+0	1.72E-2	-2.06E+1	2.24E+1
PET	MJ	3.99E+1	8.46E-1	2.88E+0	4.37E+1	3.12E-1	3.32E+0	1.78E-2	-2.14E+1	2.59E+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	2.58E-2	4.68E-5	4.61E-4	2.63E-2	3.28E-5	3.18E-3	1.98E-5	-1.19E-2	1.76E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.25E-4	8.74E-7	5.82E-6	1.32E-4	7.42E-7	4.71E-6	1.99E-8	-1.58E-5	1.22E-4
NHWD	kg	1.35E-1	7.33E-3	1.17E-3	1.44E-1	1.80E-2	1.06E-1	7.19E-2	-6.08E-2	2.79E-1
RWD	kg	6.72E-5	5.49E-6	1.54E-6	7.43E-5	1.97E-6	1.09E-5	1.06E-7	-3.24E-5	5.48E-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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