

Environmental Profile

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

Ecochain v3.5.71



Product: 3036724 - OsmaS PVCU Brch 90° BK 110x110 S/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	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	1.66E+0	6.94E-2	2.03E-1	1.93E+0	2.10E-2	6.42E-1	6.78E-3	-9.25E-1	1.68E+0
GWP-f	kg CO2 eq	1.65E+0	6.93E-2	1.99E-1	1.92E+0	2.10E-2	6.42E-1	6.78E-3	-9.18E-1	1.67E+0
GWP-b	kg CO2 eq	1.02E-2	-1.02E-5	4.17E-3	1.43E-2	1.28E-5	-5.91E-4	8.33E-6	-6.10E-3	7.65E-3
GWP-luluc	kg CO2 eq	1.33E-3	4.39E-5	1.82E-4	1.56E-3	7.44E-6	2.51E-4	1.75E-7	-5.61E-4	1.25E-3
ODP	kg CFC11 eq	8.41E-7	1.43E-8	1.65E-8	8.72E-7	4.85E-9	6.75E-8	2.48E-10	-4.35E-7	5.10E-7
AP	mol H+ eq	7.65E-3	1.94E-3	1.10E-3	1.07E-2	1.20E-4	1.17E-3	6.02E-6	-3.35E-3	8.63E-3
EP-fw	kg P eq	7.20E-5	3.33E-7	2.80E-6	7.52E-5	1.73E-7	8.34E-6	7.90E-9	-3.20E-5	5.17E-5
EP-m	kg N eq	1.28E-3	4.83E-4	2.07E-4	1.97E-3	4.29E-5	2.85E-4	3.96E-6	-5.83E-4	1.72E-3
EP-T	mol N eq	1.40E-2	5.37E-3	2.28E-3	2.17E-2	4.72E-4	3.14E-3	2.40E-5	-6.21E-3	1.91E-2
POCP	kg NMVOC eq	4.97E-3	1.40E-3	9.56E-4	7.33E-3	1.35E-4	9.42E-4	8.30E-6	-2.18E-3	6.23E-3
ADP-mm	kg Sb eq	8.85E-4	7.35E-7	5.26E-6	8.91E-4	5.44E-7	4.59E-6	6.05E-9	-1.77E-5	8.78E-4
ADP-f	MJ	4.35E+1	9.17E-1	2.20E+0	4.66E+1	3.23E-1	3.20E+0	1.81E-2	-2.23E+1	2.79E+1
WDP	m3 depriv.	2.59E+0	1.63E-3	6.40E-2	2.66E+0	9.91E-4	1.25E-1	1.22E-4	-1.25E+0	1.53E+0
PM	disease inc.	5.38E-8	2.84E-9	7.64E-9	6.42E-8	1.90E-9	1.46E-8	1.24E-10	-2.13E-8	5.95E-8
IR	kBq U-235 eq	9.28E-2	3.95E-3	5.10E-3	1.02E-1	1.41E-3	1.12E-2	8.31E-5	-4.04E-2	7.41E-2
ETP-fw	CTUe	3.41E+1	6.21E-1	6.06E+0	4.08E+1	2.62E-1	2.40E+1	2.66E-1	-1.20E+1	5.33E+1
HTP-c	CTUh	1.20E-9	3.78E-11	2.38E-10	1.48E-9	9.33E-12	3.65E-10	4.99E-13	-4.60E-10	1.39E-9
HTP-nc	CTUh	3.81E-8	5.54E-10	1.14E-8	5.01E-8	3.13E-10	8.52E-9	5.15E-11	-1.58E-8	4.32E-8
SQP	Pt	5.60E+0	2.55E-1	7.82E-1	6.64E+0	2.76E-1	1.99E+0	4.62E-2	-2.24E+0	6.71E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	2.03E+0	7.56E-3	1.30E+1	1.50E+1	4.63E-3	2.29E-1	6.73E-4	-9.09E-1	1.44E+1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	2.03E+0	7.56E-3	1.30E+1	1.50E+1	4.63E-3	2.29E-1	6.73E-4	-9.09E-1	1.44E+1
PENRE	MJ	4.67E+1	9.73E-1	2.33E+0	5.00E+1	3.43E-1	3.40E+0	1.92E-2	-2.41E+1	2.97E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	4.67E+1	9.73E-1	2.33E+0	5.00E+1	3.43E-1	3.40E+0	1.92E-2	-2.41E+1	2.97E+1
PET	MJ	4.87E+1	9.81E-1	1.53E+1	6.50E+1	3.47E-1	3.63E+0	1.99E-2	-2.50E+1	4.40E+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	2.96E-2	5.89E-5	1.91E-3	3.16E-2	3.65E-5	3.44E-3	2.21E-5	-1.32E-2	2.19E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.35E-4	1.14E-6	1.68E-5	1.53E-4	8.26E-7	5.18E-6	2.20E-8	-1.81E-5	1.40E-4
NHWD	kg	1.55E-1	1.30E-2	3.50E-3	1.72E-1	2.00E-2	1.20E-1	8.00E-2	-6.66E-2	3.25E-1
RWD	kg	8.52E-5	6.35E-6	4.44E-6	9.60E-5	2.20E-6	1.20E-5	1.18E-7	-3.57E-5	7.46E-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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