Environmental Profile

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

Ecochain v3.5.71

Product:	3036036 - OsmaS PVCU Access Plug WT 110 P/E
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

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

Results

Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	7.32E-1	8.36E-3	8.02E-2	8.20E-1	8.72E-3	2.65E-1	4.00E-3	-3.46E-1	7.53E-1
GWP-f	kg CO2 eq	7.05E-1	8.36E-3	7.85E-2	7.92E-1	8.71E-3	2.65E-1	4.00E-3	-3.43E-1	7.27E-1
GWP-b	kg CO2 eq	2.50E-2	5.07E-6	1.64E-3	2.66E-2	5.29E-6	-3.46E-4	2.93E-6	-2.55E-3	2.37E-2
GWP-luluc	kg CO2 eq	2.30E-3	2.96E-6	7.21E-5	2.37E-3	3.08E-6	4.85E-5	1.60E-7	-2.38E-4	2.18E-3
ODP	kg CFC11 eq	5.97E-8	1.93E-9	6.50E-9	6.81E-8	2.01E-9	6.36E-9	1.10E-10	-1.83E-7	-1.06E-7
AP	mol H+ eq	7.27E-3	4.76E-5	4.37E-4	7.75E-3	4.96E-5	2.60E-4	3.02E-6	-1.38E-3	6.69E-3
EP-fw	kg P eq	7.76E-5	6.88E-8	1.11E-6	7.88E-5	7.17E-8	1.40E-6	6.06E-9	-1.36E-5	6.67E-5
EP-m	kg N eq	1.46E-3	1.70E-5	8.18E-5	1.55E-3	1.78E-5	7.46E-5	1.11E-6	-2.35E-4	1.41E-3
EP-T	mol N eq	1.82E-2	1.88E-4	9.00E-4	1.92E-2	1.96E-4	8.17E-4	1.12E-5	-2.50E-3	1.78E-2
POCP	kg NMVOC eq	4.18E-3	5.37E-5	3.77E-4	4.61E-3	5.60E-5	2.58E-4	4.09E-6	-8.71E-4	4.06E-3
ADP-mm	kg Sb eq	1.57E-2	2.16E-7	2.09E-6	1.57E-2	2.25E-7	1.06E-6	3.76E-9	-7.80E-6	1.57E-2
ADP-f	MJ	1.06E+1	1.28E-1	8.69E-1	1.16E+1	1.34E-1	8.49E-1	8.32E-3	-8.54E+0	4.02E+0
WDP	m3 depriv.	7.77E-1	3.94E-4	2.53E-2	8.03E-1	4.11E-4	1.58E-2	3.51E-4	-5.31E-1	2.89E-1
PM	disease inc.	3.32E-8	7.54E-10	3.02E-9	3.70E-8	7.87E-10	4.32E-9	5.76E-11	-8.79E-9	3.33E-8
IR	kBq U-235 eq	7.12E-2	5.61E-4	2.01E-3	7.37E-2	5.85E-4	2.55E-3	3.30E-5	-1.71E-2	5.98E-2
ETP-fw	CTUe	1.51E+2	1.04E-1	2.40E+0	1.53E+2	1.09E-1	9.85E-1	7.13E-3	-5.09E+0	1.49E+2
HTP-c	CTUh	3.58E-9	3.71E-12	9.40E-11	3.67E-9	3.87E-12	2.91E-10	4.34E-13	-1.93E-10	3.78E-9
HTP-nc	CTUh	1.06E-7	1.24E-10	4.51E-9	1.10E-7	1.30E-10	1.88E-9	5.93E-12	-6.72E-9	1.06E-7
SQP	Pt	5.89E+0	1.10E-1	3.10E-1	6.31E+0	1.14E-1	6.75E-1	1.99E-2	-9.38E-1	6.18E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.47E+0	1.84E-3	5.16E+0	6.63E+0	1.92E-3	4.15E-2	1.50E-4	-3.85E-1	6.29E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.47E+0	1.84E-3	5.16E+0	6.63E+0	1.92E-3	4.15E-2	1.50E-4	-3.85E-1	6.29E+0
PENRE	MJ	1.12E+1	1.36E-1	9.22E-1	1.23E+1	1.42E-1	9.04E-1	8.85E-3	-9.18E+0	4.17E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.12E+1	1.36E-1	9.22E-1	1.23E+1	1.42E-1	9.04E-1	8.85E-3	-9.18E+0	4.17E+0
PET	MJ	1.27E+1	1.38E-1	6.08E+0	1.89E+1	1.44E-1	9.46E-1	9.00E-3	-9.57E+0	1.05E+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	2.29E-2	1.45E-5	7.54E-4	2.36E-2	1.51E-5	4.90E-4	8.77E-6	-5.53E-3	1.86E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	2.00E-3	3.28E-7	6.59E-6	2.01E-3	3.42E-7	1.55E-6	1.27E-8	-6.93E-6	2.00E-3
NHWD	kg	1.31E-1	7.95E-3	1.38E-3	1.40E-1	8.29E-3	4.36E-2	3.36E-2	-2.82E-2	1.98E-1
RWD	kg	5.31E-5	8.72E-7	1.75E-6	5.57E-5	9.10E-7	3.23E-6	5.00E-8	-1.50E-5	4.49E-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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