

Environmental Profile

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

Ecochain v3.5.71



Product: 3036326 - OsmaS PVCU Bend 45° E 110 SW/S
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

This document and supporting material contain confidential and proprietary business information of Wavin - UK - Chippenham - Verified. These materials may be printed or (photo) copied or otherwise used only with the written consent of Wavin - UK - Chippenham - Verified.

Results

Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	7.57E-1	6.90E-3	5.57E-2	8.20E-1	9.12E-3	2.63E-1	4.13E-3	-3.60E-1	7.36E-1
GWP-f	kg CO2 eq	7.28E-1	6.89E-3	5.39E-2	7.89E-1	9.11E-3	2.63E-1	4.13E-3	-3.57E-1	7.09E-1
GWP-b	kg CO2 eq	2.67E-2	4.19E-6	1.77E-3	2.84E-2	5.53E-6	-3.67E-4	3.01E-6	-2.71E-3	2.54E-2
GWP-luluc	kg CO2 eq	2.41E-3	2.44E-6	3.98E-5	2.46E-3	3.22E-6	5.12E-5	1.67E-7	-2.51E-4	2.26E-3
ODP	kg CFC11 eq	5.77E-8	1.59E-9	5.47E-9	6.48E-8	2.10E-9	6.68E-9	1.13E-10	-1.93E-7	-1.19E-7
AP	mol H+ eq	7.58E-3	3.93E-5	2.77E-4	7.90E-3	5.19E-5	2.73E-4	3.13E-6	-1.45E-3	6.77E-3
EP-fw	kg P eq	8.15E-5	5.67E-8	7.29E-7	8.23E-5	7.49E-8	1.48E-6	6.32E-9	-1.43E-5	6.95E-5
EP-m	kg N eq	1.52E-3	1.41E-5	5.96E-5	1.60E-3	1.86E-5	7.79E-5	1.05E-6	-2.47E-4	1.45E-3
EP-T	mol N eq	1.90E-2	1.55E-4	6.37E-4	1.98E-2	2.05E-4	8.54E-4	1.16E-5	-2.63E-3	1.83E-2
POCP	kg NMVOC eq	4.34E-3	4.43E-5	3.00E-4	4.68E-3	5.85E-5	2.71E-4	4.24E-6	-9.14E-4	4.10E-3
ADP-mm	kg Sb eq	1.66E-2	1.78E-7	1.14E-6	1.66E-2	2.36E-7	1.12E-6	3.91E-9	-7.96E-6	1.66E-2
ADP-f	MJ	1.07E+1	1.06E-1	5.95E-1	1.14E+1	1.40E-1	8.94E-1	8.61E-3	-8.93E+0	3.51E+0
WDP	m3 depriv.	8.12E-1	3.25E-4	1.93E-2	8.31E-1	4.29E-4	1.64E-2	3.71E-4	-5.61E-1	2.88E-1
PM	disease inc.	3.37E-8	6.22E-10	1.85E-9	3.61E-8	8.22E-10	4.55E-9	5.96E-11	-9.25E-9	3.23E-8
IR	kBq U-235 eq	7.34E-2	4.63E-4	1.62E-3	7.55E-2	6.11E-4	2.68E-3	3.39E-5	-1.80E-2	6.09E-2
ETP-fw	CTUe	1.59E+2	8.59E-2	1.41E+0	1.60E+2	1.14E-1	1.00E+0	7.14E-3	-5.36E+0	1.56E+2
HTP-c	CTUh	3.77E-9	3.06E-12	5.55E-11	3.83E-9	4.04E-12	3.08E-10	4.54E-13	-2.04E-10	3.94E-9
HTP-nc	CTUh	1.12E-7	1.02E-10	3.72E-9	1.15E-7	1.35E-10	1.97E-9	6.10E-12	-7.10E-9	1.10E-7
SQP	Pt	6.11E+0	9.05E-2	1.89E-1	6.39E+0	1.20E-1	7.13E-1	2.05E-2	-9.86E-1	6.26E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.54E+0	1.52E-3	2.75E+0	4.29E+0	2.01E-3	4.37E-2	1.49E-4	-4.06E-1	3.93E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.54E+0	1.52E-3	2.75E+0	4.29E+0	2.01E-3	4.37E-2	1.49E-4	-4.06E-1	3.93E+0
PENRE	MJ	1.14E+1	1.12E-1	6.32E-1	1.21E+1	1.48E-1	9.53E-1	9.15E-3	-9.60E+0	3.62E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.14E+1	1.12E-1	6.32E-1	1.21E+1	1.48E-1	9.53E-1	9.15E-3	-9.60E+0	3.62E+0
PET	MJ	1.29E+1	1.14E-1	3.38E+0	1.64E+1	1.50E-1	9.97E-1	9.30E-3	-1.00E+1	7.55E+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	2.39E-2	1.20E-5	5.41E-4	2.45E-2	1.58E-5	4.90E-4	9.04E-6	-5.83E-3	1.91E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	2.12E-3	2.71E-7	6.83E-6	2.12E-3	3.58E-7	1.62E-6	1.32E-8	-7.21E-6	2.12E-3
NHWD	kg	1.37E-1	6.56E-3	1.37E-3	1.45E-1	8.67E-3	4.58E-2	3.47E-2	-2.97E-2	2.04E-1
RWD	kg	5.35E-5	7.20E-7	1.81E-6	5.61E-5	9.51E-7	3.41E-6	5.16E-8	-1.58E-5	4.47E-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



Ecochain Technologies BV
H.J.E. Wenckebachweg 123, 1096 AM Amsterdam, The Netherlands
<https://www.ecochain.com>
+31 20 3035 777