

Environmental Profile

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

Ecochain v3.5.71



Product: 3032481 - OsmaS PVCU Bend 90° 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

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	1.08E+0	9.84E-3	7.49E-2	1.16E+0	1.30E-2	3.73E-1	5.91E-3	-5.12E-1	1.04E+0
GWP-f	kg CO2 eq	1.04E+0	9.83E-3	7.25E-2	1.12E+0	1.30E-2	3.73E-1	5.91E-3	-5.08E-1	1.00E+0
GWP-b	kg CO2 eq	3.83E-2	5.97E-6	2.38E-3	4.06E-2	7.91E-6	-5.25E-4	4.30E-6	-3.88E-3	3.63E-2
GWP-luluc	kg CO2 eq	3.45E-3	3.48E-6	5.34E-5	3.51E-3	4.61E-6	7.32E-5	2.39E-7	-3.59E-4	3.23E-3
ODP	kg CFC11 eq	8.24E-8	2.27E-9	7.35E-9	9.20E-8	3.00E-9	9.54E-9	1.62E-10	-2.76E-7	-1.71E-7
AP	mol H+ eq	1.08E-2	5.60E-5	3.72E-4	1.13E-2	7.42E-5	3.89E-4	4.47E-6	-2.07E-3	9.65E-3
EP-fw	kg P eq	1.16E-4	8.09E-8	9.79E-7	1.18E-4	1.07E-7	2.11E-6	9.04E-9	-2.05E-5	9.93E-5
EP-m	kg N eq	2.18E-3	2.00E-5	8.01E-5	2.28E-3	2.66E-5	1.11E-4	1.51E-6	-3.53E-4	2.06E-3
EP-T	mol N eq	2.72E-2	2.21E-4	8.56E-4	2.83E-2	2.93E-4	1.22E-3	1.66E-5	-3.75E-3	2.60E-2
POCP	kg NMVOC eq	6.19E-3	6.32E-5	4.04E-4	6.65E-3	8.37E-5	3.86E-4	6.06E-6	-1.31E-3	5.82E-3
ADP-mm	kg Sb eq	2.38E-2	2.54E-7	1.53E-6	2.38E-2	3.37E-7	1.59E-6	5.60E-9	-1.14E-5	2.38E-2
ADP-f	MJ	1.52E+1	1.51E-1	8.00E-1	1.61E+1	2.00E-1	1.28E+0	1.23E-2	-1.27E+1	4.88E+0
WDP	m3 depriv.	1.16E+0	4.63E-4	2.59E-2	1.18E+0	6.14E-4	2.35E-2	5.31E-4	-8.02E-1	4.07E-1
PM	disease inc.	4.80E-8	8.88E-10	2.48E-9	5.14E-8	1.18E-9	6.51E-9	8.53E-11	-1.32E-8	4.59E-8
IR	kBq U-235 eq	1.05E-1	6.60E-4	2.18E-3	1.08E-1	8.74E-4	3.84E-3	4.86E-5	-2.57E-2	8.68E-2
ETP-fw	CTUe	2.27E+2	1.23E-1	1.90E+0	2.29E+2	1.62E-1	1.44E+0	1.02E-2	-7.67E+0	2.23E+2
HTP-c	CTUh	5.40E-9	4.36E-12	7.46E-11	5.47E-9	5.78E-12	4.40E-10	6.49E-13	-2.91E-10	5.63E-9
HTP-nc	CTUh	1.60E-7	1.46E-10	4.99E-9	1.65E-7	1.94E-10	2.82E-9	8.73E-12	-1.02E-8	1.58E-7
SQP	Pt	8.72E+0	1.29E-1	2.54E-1	9.10E+0	1.71E-1	1.02E+0	2.94E-2	-1.41E+0	8.91E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	2.19E+0	2.17E-3	3.70E+0	5.89E+0	2.87E-3	6.26E-2	2.14E-4	-5.81E-1	5.38E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	2.19E+0	2.17E-3	3.70E+0	5.89E+0	2.87E-3	6.26E-2	2.14E-4	-5.81E-1	5.38E+0
PENRE	MJ	1.61E+1	1.60E-1	8.49E-1	1.71E+1	2.12E-1	1.36E+0	1.31E-2	-1.37E+1	5.04E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.61E+1	1.60E-1	8.49E-1	1.71E+1	2.12E-1	1.36E+0	1.31E-2	-1.37E+1	5.04E+0
PET	MJ	1.83E+1	1.62E-1	4.55E+0	2.30E+1	2.15E-1	1.43E+0	1.33E-2	-1.43E+1	1.04E+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	3.41E-2	1.71E-5	7.26E-4	3.49E-2	2.26E-5	7.00E-4	1.29E-5	-8.34E-3	2.73E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	3.03E-3	3.86E-7	9.17E-6	3.04E-3	5.11E-7	2.32E-6	1.89E-8	-1.03E-5	3.03E-3
NHWD	kg	1.95E-1	9.36E-3	1.84E-3	2.06E-1	1.24E-2	6.53E-2	4.96E-2	-4.25E-2	2.91E-1
RWD	kg	7.65E-5	1.03E-6	2.43E-6	7.99E-5	1.36E-6	4.87E-6	7.39E-8	-2.25E-5	6.37E-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



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