

Environmental Profile

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

Ecochain v3.5.71



Product: 3036419 - OsmaDrain Bend 11.25° BN 110 SN8 S/S
Unit: 1 piece
Manufacturer: Wavin - UK - Chippenham - Verified

Wavin OsmaDrain - the definitive & comprehensive PVC-U gravity drainage system for residential, commercial & industrial projects. The source for all types of gravity drainage, sewer installation & pressure pipe systems in any private or public development. One of the UK's most trusted & leading names in plastic drainage systems.

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	7.51E-1	3.07E-2	7.16E-2	8.53E-1	9.27E-3	2.98E-1	3.00E-3	-4.17E-1	7.46E-1
GWP-f	kg CO2 eq	7.47E-1	3.07E-2	6.98E-2	8.47E-1	9.26E-3	2.98E-1	3.00E-3	-4.14E-1	7.43E-1
GWP-b	kg CO2 eq	3.94E-3	-4.13E-6	1.77E-3	5.71E-3	5.63E-6	-2.61E-4	3.67E-6	-2.69E-3	2.77E-3
GWP-luluc	kg CO2 eq	6.04E-4	1.93E-5	5.93E-5	6.83E-4	3.28E-6	1.10E-4	7.75E-8	-2.47E-4	5.49E-4
ODP	kg CFC11 eq	3.65E-7	6.32E-9	6.27E-9	3.78E-7	2.14E-9	2.95E-8	1.09E-10	-1.92E-7	2.18E-7
AP	mol H+ eq	3.47E-3	8.45E-4	3.77E-4	4.69E-3	5.28E-5	5.14E-4	2.66E-6	-1.48E-3	3.78E-3
EP-fw	kg P eq	3.24E-5	1.49E-7	9.70E-7	3.35E-5	7.62E-8	3.65E-6	3.49E-9	-1.41E-5	2.32E-5
EP-m	kg N eq	5.82E-4	2.11E-4	7.43E-5	8.68E-4	1.89E-5	1.26E-4	1.76E-6	-2.59E-4	7.55E-4
EP-T	mol N eq	6.39E-3	2.35E-3	8.09E-4	9.54E-3	2.08E-4	1.39E-3	1.06E-5	-2.76E-3	8.39E-3
POCP	kg NMVOC eq	2.27E-3	6.12E-4	3.56E-4	3.24E-3	5.95E-5	4.16E-4	3.66E-6	-9.70E-4	2.75E-3
ADP-mm	kg Sb eq	3.93E-4	3.32E-7	1.71E-6	3.95E-4	2.40E-7	2.01E-6	2.67E-9	-7.79E-6	3.89E-4
ADP-f	MJ	1.95E+1	4.06E-1	7.72E-1	2.07E+1	1.42E-1	1.41E+0	7.97E-3	-1.00E+1	1.22E+1
WDP	m3 depriv.	1.15E+0	7.33E-4	2.34E-2	1.18E+0	4.36E-4	5.46E-2	5.46E-5	-5.52E-1	6.80E-1
PM	disease inc.	2.41E-8	1.28E-9	2.58E-9	2.79E-8	8.36E-10	6.42E-9	5.48E-11	-9.43E-9	2.58E-8
IR	kBq U-235 eq	4.06E-2	1.75E-3	1.91E-3	4.43E-2	6.22E-4	4.90E-3	3.66E-5	-1.78E-2	3.21E-2
ETP-fw	CTUe	1.53E+1	2.76E-1	2.02E+0	1.76E+1	1.15E-1	1.05E+1	1.16E-1	-5.30E+0	2.30E+1
HTP-c	CTUh	5.37E-10	1.67E-11	7.92E-11	6.33E-10	4.11E-12	1.63E-10	2.21E-13	-2.03E-10	5.98E-10
HTP-nc	CTUh	1.70E-8	2.48E-10	4.31E-9	2.15E-8	1.38E-10	3.75E-9	2.25E-11	-6.97E-9	1.85E-8
SQP	Pt	2.55E+0	1.18E-1	2.64E-1	2.93E+0	1.22E-1	8.78E-1	2.04E-2	-9.89E-1	2.96E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	9.16E-1	3.40E-3	4.20E+0	5.12E+0	2.04E-3	1.00E-1	2.97E-4	-4.00E-1	4.82E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	9.16E-1	3.40E-3	4.20E+0	5.12E+0	2.04E-3	1.00E-1	2.97E-4	-4.00E-1	4.82E+0
PENRE	MJ	2.09E+1	4.32E-1	8.19E-1	2.22E+1	1.51E-1	1.50E+0	8.46E-3	-1.08E+1	1.30E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	2.09E+1	4.32E-1	8.19E-1	2.22E+1	1.51E-1	1.50E+0	8.46E-3	-1.08E+1	1.30E+1
PET	MJ	2.19E+1	4.35E-1	5.02E+0	2.73E+1	1.53E-1	1.60E+0	8.76E-3	-1.12E+1	1.79E+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	1.35E-2	2.65E-5	6.81E-4	1.42E-2	1.61E-5	1.51E-3	9.75E-6	-5.81E-3	9.92E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	5.95E-5	5.14E-7	6.98E-6	6.70E-5	3.64E-7	2.28E-6	9.73E-9	-8.15E-6	6.15E-5
NHWD	kg	7.04E-2	6.13E-3	1.43E-3	7.80E-2	8.82E-3	5.37E-2	3.52E-2	-2.94E-2	1.46E-1
RWD	kg	3.67E-5	2.81E-6	1.85E-6	4.14E-5	9.67E-7	5.27E-6	5.19E-8	-1.58E-5	3.19E-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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