

Environmental Profile

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

Ecochain v3.5.71



Product: 3036787 - OsmaDrain Bend LR 87.5° BN 110 SN8 D/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	1.72E+0	7.41E-2	1.75E-1	1.97E+0	2.27E-2	6.27E-1	7.30E-3	-9.55E-1	1.67E+0
GWP-f	kg CO2 eq	1.70E+0	7.41E-2	1.71E-1	1.95E+0	2.27E-2	6.28E-1	7.29E-3	-9.48E-1	1.66E+0
GWP-b	kg CO2 eq	1.31E-2	-1.16E-5	4.22E-3	1.73E-2	1.38E-5	-6.37E-4	8.97E-6	-6.56E-3	1.01E-2
GWP-luluc	kg CO2 eq	1.39E-3	4.72E-5	1.47E-4	1.58E-3	8.02E-6	2.70E-4	1.89E-7	-6.04E-4	1.26E-3
ODP	kg CFC11 eq	9.00E-7	1.52E-8	1.52E-8	9.30E-7	5.22E-9	7.28E-8	2.67E-10	-4.65E-7	5.43E-7
AP	mol H+ eq	7.92E-3	2.09E-3	9.29E-4	1.09E-2	1.29E-4	1.25E-3	6.49E-6	-3.58E-3	8.75E-3
EP-fw	kg P eq	7.57E-5	3.53E-7	2.38E-6	7.85E-5	1.86E-7	8.99E-6	8.52E-9	-3.44E-5	5.32E-5
EP-m	kg N eq	1.32E-3	5.21E-4	1.82E-4	2.03E-3	4.62E-5	3.03E-4	4.25E-6	-6.19E-4	1.76E-3
EP-T	mol N eq	1.45E-2	5.79E-3	1.98E-3	2.23E-2	5.09E-4	3.34E-3	2.59E-5	-6.58E-3	1.96E-2
POCP	kg NMVOC eq	5.04E-3	1.51E-3	8.64E-4	7.41E-3	1.46E-4	1.00E-3	8.94E-6	-2.31E-3	6.26E-3
ADP-mm	kg Sb eq	9.61E-4	7.70E-7	4.25E-6	9.66E-4	5.86E-7	4.94E-6	6.52E-9	-1.91E-5	9.52E-4
ADP-f	MJ	4.43E+1	9.77E-1	1.89E+0	4.72E+1	3.48E-1	3.44E+0	1.95E-2	-2.33E+1	2.77E+1
WDP	m3 depriv.	2.75E+0	1.72E-3	5.70E-2	2.81E+0	1.07E-3	1.35E-1	1.32E-4	-1.35E+0	1.60E+0
PM	disease inc.	5.37E-8	2.98E-9	6.36E-9	6.30E-8	2.05E-9	1.56E-8	1.34E-10	-2.28E-8	5.80E-8
IR	kBq U-235 eq	9.57E-2	4.21E-3	4.63E-3	1.05E-1	1.52E-3	1.20E-2	8.96E-5	-4.34E-2	7.48E-2
ETP-fw	CTUe	3.60E+1	6.60E-1	4.99E+0	4.16E+1	2.82E-1	2.59E+1	2.87E-1	-1.29E+1	5.52E+1
HTP-c	CTUh	1.28E-9	4.05E-11	1.96E-10	1.52E-9	1.01E-11	3.86E-10	5.38E-13	-4.93E-10	1.42E-9
HTP-nc	CTUh	4.08E-8	5.85E-10	1.05E-8	5.19E-8	3.37E-10	9.14E-9	5.57E-11	-1.70E-8	4.44E-8
SQP	Pt	5.68E+0	2.64E-1	6.51E-1	6.60E+0	2.98E-1	2.14E+0	4.98E-2	-2.40E+0	6.68E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	2.11E+0	7.97E-3	1.04E+1	1.26E+1	4.99E-3	2.47E-1	7.25E-4	-9.79E-1	1.18E+1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	2.11E+0	7.97E-3	1.04E+1	1.26E+1	4.99E-3	2.47E-1	7.25E-4	-9.79E-1	1.18E+1
PENRE	MJ	4.75E+1	1.04E+0	2.01E+0	5.06E+1	3.69E-1	3.66E+0	2.07E-2	-2.51E+1	2.95E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	4.75E+1	1.04E+0	2.01E+0	5.06E+1	3.69E-1	3.66E+0	2.07E-2	-2.51E+1	2.95E+1
PET	MJ	4.96E+1	1.05E+0	1.24E+1	6.31E+1	3.74E-1	3.91E+0	2.14E-2	-2.61E+1	4.13E+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	3.09E-2	6.20E-5	1.67E-3	3.27E-2	3.94E-5	3.70E-3	2.39E-5	-1.41E-2	2.23E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.46E-4	1.19E-6	1.67E-5	1.64E-4	8.90E-7	5.55E-6	2.38E-8	-1.87E-5	1.52E-4
NHWD	kg	1.63E-1	1.32E-2	3.43E-3	1.80E-1	2.16E-2	1.26E-1	8.62E-2	-7.16E-2	3.42E-1
RWD	kg	8.61E-5	6.77E-6	4.42E-6	9.73E-5	2.37E-6	1.29E-5	1.27E-7	-3.82E-5	7.44E-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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