

Environmental Profile

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

Ecochain v3.5.71



Product: 3037997 - OsmaDrain Bend LR 87.5° 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	2.80E+0	1.26E-1	3.30E-1	3.25E+0	5.20E-2	1.34E+0	1.50E-2	-1.37E+0	3.29E+0
GWP-f	kg CO2 eq	2.74E+0	1.26E-1	3.20E-1	3.19E+0	5.19E-2	1.35E+0	1.50E-2	-1.36E+0	3.24E+0
GWP-b	kg CO2 eq	5.51E-2	-1.58E-5	9.75E-3	6.49E-2	3.15E-5	-1.40E-3	1.91E-5	-8.69E-3	5.48E-2
GWP-luluc	kg CO2 eq	2.35E-3	7.85E-5	2.48E-4	2.68E-3	1.84E-5	6.15E-4	4.01E-7	-8.04E-4	2.51E-3
ODP	kg CFC11 eq	1.45E-6	2.59E-8	3.13E-8	1.51E-6	1.20E-8	1.65E-7	5.95E-10	-6.30E-7	1.06E-6
AP	mol H+ eq	1.27E-2	3.43E-3	1.67E-3	1.78E-2	2.96E-4	2.84E-3	1.43E-5	-4.79E-3	1.62E-2
EP-fw	kg P eq	1.28E-4	6.15E-7	4.36E-6	1.33E-4	4.27E-7	2.04E-5	1.81E-8	-4.57E-5	1.09E-4
EP-m	kg N eq	2.12E-3	8.58E-4	3.50E-4	3.33E-3	1.06E-4	6.88E-4	8.85E-6	-8.42E-4	3.29E-3
EP-T	mol N eq	2.31E-2	9.54E-3	3.76E-3	3.64E-2	1.17E-3	7.58E-3	5.71E-5	-8.97E-3	3.62E-2
POCP	kg NMVOC eq	7.84E-3	2.48E-3	1.74E-3	1.21E-2	3.33E-4	2.28E-3	1.95E-5	-3.12E-3	1.16E-2
ADP-mm	kg Sb eq	9.79E-4	1.38E-6	7.11E-6	9.87E-4	1.34E-6	1.13E-5	1.42E-8	-2.52E-5	9.75E-4
ADP-f	MJ	6.97E+1	1.67E+0	3.53E+0	7.49E+1	7.97E-1	7.84E+0	4.32E-2	-3.23E+1	5.12E+1
WDP	m3 depriv.	4.39E+0	3.04E-3	1.12E-1	4.50E+0	2.45E-3	3.06E-1	2.49E-4	-1.79E+0	3.03E+0
PM	disease inc.	8.68E-8	5.31E-9	1.12E-8	1.03E-7	4.69E-9	3.56E-8	2.96E-10	-3.02E-8	1.14E-7
IR	kBq U-235 eq	1.63E-1	7.18E-3	9.34E-3	1.79E-1	3.48E-3	2.74E-2	1.98E-4	-5.80E-2	1.52E-1
ETP-fw	CTUe	5.57E+1	1.14E+0	8.66E+0	6.55E+1	6.47E-1	5.87E+1	6.48E-1	-1.74E+1	1.08E+2
HTP-c	CTUh	1.99E-9	6.81E-11	3.40E-10	2.40E-9	2.30E-11	8.50E-10	1.13E-12	-6.59E-10	2.61E-9
HTP-nc	CTUh	6.34E-8	1.03E-9	2.13E-8	8.57E-8	7.72E-10	2.07E-8	1.25E-10	-2.26E-8	8.46E-8
SQP	Pt	9.60E+0	4.95E-1	1.15E+0	1.12E+1	6.82E-1	4.90E+0	1.10E-1	-3.23E+0	1.37E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	3.66E+0	1.41E-2	1.73E+1	2.09E+1	1.14E-2	5.63E-1	1.57E-3	-1.30E+0	2.02E+1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	3.66E+0	1.41E-2	1.73E+1	2.09E+1	1.14E-2	5.63E-1	1.57E-3	-1.30E+0	2.02E+1
PENRE	MJ	7.47E+1	1.77E+0	3.75E+0	8.02E+1	8.46E-1	8.35E+0	4.58E-2	-3.49E+1	5.46E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	7.47E+1	1.77E+0	3.75E+0	8.02E+1	8.46E-1	8.35E+0	4.58E-2	-3.49E+1	5.46E+1
PET	MJ	7.84E+1	1.78E+0	2.10E+1	1.01E+2	8.58E-1	8.91E+0	4.74E-2	-3.62E+1	7.48E+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	4.93E-2	1.10E-4	3.18E-3	5.26E-2	9.02E-5	8.36E-3	5.29E-5	-1.88E-2	4.23E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.67E-4	2.14E-6	3.78E-5	2.07E-4	2.04E-6	1.26E-5	5.21E-8	-2.72E-5	1.95E-4
NHWD	kg	2.78E-1	2.62E-2	7.64E-3	3.12E-1	4.94E-2	2.88E-1	1.97E-1	-9.54E-2	7.51E-1
RWD	kg	1.43E-4	1.15E-5	1.00E-5	1.64E-4	5.42E-6	2.94E-5	2.82E-7	-5.14E-5	1.48E-4
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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