

Environmental Profile

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

Ecochain v3.5.71



Product: 3036532 - OsmaDrain Bend LR 45° 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	1.43E+0	6.19E-2	1.43E-1	1.63E+0	1.89E-2	5.19E-1	6.11E-3	-7.94E-1	1.38E+0
GWP-f	kg CO2 eq	1.41E+0	6.19E-2	1.39E-1	1.62E+0	1.89E-2	5.19E-1	6.10E-3	-7.88E-1	1.37E+0
GWP-b	kg CO2 eq	1.07E-2	-9.03E-6	3.41E-3	1.41E-2	1.15E-5	-5.34E-4	7.48E-6	-5.45E-3	8.16E-3
GWP-luluc	kg CO2 eq	1.15E-3	3.92E-5	1.20E-4	1.31E-3	6.69E-6	2.24E-4	1.57E-7	-5.01E-4	1.04E-3
ODP	kg CFC11 eq	7.44E-7	1.27E-8	1.23E-8	7.69E-7	4.36E-9	6.01E-8	2.23E-10	-3.85E-7	4.48E-7
AP	mol H+ eq	6.58E-3	1.73E-3	7.57E-4	9.06E-3	1.08E-4	1.04E-3	5.41E-6	-2.98E-3	7.24E-3
EP-fw	kg P eq	6.27E-5	2.98E-7	1.94E-6	6.49E-5	1.56E-7	7.44E-6	7.09E-9	-2.85E-5	4.40E-5
EP-m	kg N eq	1.10E-3	4.31E-4	1.48E-4	1.68E-3	3.85E-5	2.51E-4	3.59E-6	-5.14E-4	1.46E-3
EP-T	mol N eq	1.20E-2	4.79E-3	1.61E-3	1.84E-2	4.25E-4	2.77E-3	2.16E-5	-5.47E-3	1.62E-2
POCP	kg NMVOC eq	4.20E-3	1.25E-3	7.01E-4	6.15E-3	1.21E-4	8.32E-4	7.46E-6	-1.92E-3	5.19E-3
ADP-mm	kg Sb eq	7.85E-4	6.57E-7	3.47E-6	7.89E-4	4.89E-7	4.09E-6	5.43E-9	-1.58E-5	7.78E-4
ADP-f	MJ	3.70E+1	8.19E-1	1.54E+0	3.94E+1	2.90E-1	2.85E+0	1.63E-2	-1.94E+1	2.31E+1
WDP	m3 depriv.	2.28E+0	1.46E-3	4.63E-2	2.32E+0	8.90E-4	1.11E-1	1.09E-4	-1.12E+0	1.32E+0
PM	disease inc.	4.49E-8	2.54E-9	5.18E-9	5.26E-8	1.71E-9	1.30E-8	1.12E-10	-1.90E-8	4.84E-8
IR	kBq U-235 eq	8.00E-2	3.53E-3	3.76E-3	8.73E-2	1.27E-3	9.96E-3	7.47E-5	-3.60E-2	6.26E-2
ETP-fw	CTUe	2.97E+1	5.55E-1	4.07E+0	3.43E+1	2.36E-1	2.14E+1	2.37E-1	-1.07E+1	4.54E+1
HTP-c	CTUh	1.06E-9	3.38E-11	1.60E-10	1.25E-9	8.38E-12	3.20E-10	4.48E-13	-4.09E-10	1.17E-9
HTP-nc	CTUh	3.37E-8	4.95E-10	8.48E-9	4.27E-8	2.81E-10	7.56E-9	4.60E-11	-1.41E-8	3.64E-8
SQP	Pt	4.72E+0	2.29E-1	5.31E-1	5.48E+0	2.48E-1	1.78E+0	4.15E-2	-1.99E+0	5.56E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.75E+0	6.76E-3	8.53E+0	1.03E+1	4.16E-3	2.05E-1	6.06E-4	-8.12E-1	9.69E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.75E+0	6.76E-3	8.53E+0	1.03E+1	4.16E-3	2.05E-1	6.06E-4	-8.12E-1	9.69E+0
PENRE	MJ	3.97E+1	8.69E-1	1.63E+0	4.22E+1	3.08E-1	3.04E+0	1.72E-2	-2.09E+1	2.46E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	3.97E+1	8.69E-1	1.63E+0	4.22E+1	3.08E-1	3.04E+0	1.72E-2	-2.09E+1	2.46E+1
PET	MJ	4.14E+1	8.76E-1	1.02E+1	5.25E+1	3.12E-1	3.24E+0	1.79E-2	-2.17E+1	3.43E+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	2.57E-2	5.26E-5	1.35E-3	2.71E-2	3.28E-5	3.06E-3	1.99E-5	-1.18E-2	1.84E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.19E-4	1.02E-6	1.35E-5	1.33E-4	7.42E-7	4.61E-6	1.98E-8	-1.55E-5	1.23E-4
NHWD	kg	1.35E-1	1.17E-2	2.77E-3	1.49E-1	1.80E-2	1.05E-1	7.19E-2	-5.94E-2	2.85E-1
RWD	kg	7.25E-5	5.67E-6	3.57E-6	8.17E-5	1.97E-6	1.07E-5	1.06E-7	-3.17E-5	6.27E-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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