

Environmental Profile

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

Ecochain v3.5.71



Product: 3034106 - OsmaD 450mm RD Cover & Frame 15kN RR BK
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	6.32E+0	2.65E-1	2.76E+0	9.34E+0	1.11E-1	3.62E+0	5.25E-2	-3.59E+0	9.53E+0
GWP-f	kg CO2 eq	6.57E+0	2.65E-1	2.74E+0	9.58E+0	1.11E-1	3.25E+0	5.25E-2	-3.58E+0	9.41E+0
GWP-b	kg CO2 eq	-2.56E-1	1.53E-4	1.51E-2	-2.41E-1	6.75E-5	3.69E-1	4.58E-5	-1.00E-2	1.18E-1
GWP-luluc	kg CO2 eq	2.51E-3	9.62E-5	3.16E-3	5.77E-3	3.94E-5	6.27E-4	8.79E-7	-7.32E-4	5.70E-3
ODP	kg CFC11 eq	1.99E-7	6.07E-8	1.61E-7	4.20E-7	2.56E-8	8.21E-8	1.31E-9	-1.72E-7	3.58E-7
AP	mol H+ eq	2.46E-2	1.76E-3	1.68E-2	4.32E-2	6.34E-4	3.45E-3	3.13E-5	-9.19E-3	3.81E-2
EP-fw	kg P eq	1.28E-4	2.13E-6	4.09E-5	1.71E-4	9.15E-7	1.81E-5	4.05E-8	-3.71E-5	1.53E-4
EP-m	kg N eq	4.11E-3	5.98E-4	2.63E-3	7.34E-3	2.27E-4	1.00E-3	2.05E-5	-1.71E-3	6.87E-3
EP-T	mol N eq	4.60E-2	6.59E-3	3.01E-2	8.27E-2	2.50E-3	1.11E-2	1.27E-4	-1.91E-2	7.73E-2
POCP	kg NMVOC eq	2.04E-2	1.86E-3	1.05E-2	3.27E-2	7.14E-4	3.49E-3	4.78E-5	-8.59E-3	2.84E-2
ADP-mm	kg Sb eq	8.62E-5	6.66E-6	9.19E-5	1.85E-4	2.88E-6	1.37E-5	3.14E-8	-2.06E-5	1.81E-4
ADP-f	MJ	2.24E+2	4.04E+0	3.04E+1	2.59E+2	1.71E+0	1.09E+1	9.59E-2	-1.03E+2	1.68E+2
WDP	m3 depriv.	4.24E+0	1.22E-2	7.57E-1	5.01E+0	5.24E-3	2.13E-1	4.39E-4	-1.66E+0	3.57E+0
PM	disease inc.	2.36E-7	2.33E-8	1.21E-7	3.80E-7	1.00E-8	5.67E-8	6.59E-10	-8.00E-8	3.68E-7
IR	kBq U-235 eq	1.80E-1	1.76E-2	5.47E-2	2.52E-1	7.46E-3	3.30E-2	4.46E-4	-4.73E-2	2.46E-1
ETP-fw	CTUe	5.00E+1	3.26E+0	9.91E+1	1.52E+2	1.39E+0	1.23E+1	8.03E-2	-1.52E+1	1.51E+2
HTP-c	CTUh	5.08E-9	1.18E-10	3.88E-9	9.08E-9	4.93E-11	1.46E-9	2.31E-12	-6.68E-10	9.92E-9
HTP-nc	CTUh	5.28E-8	3.85E-9	1.17E-7	1.74E-7	1.65E-9	1.83E-8	5.15E-11	-6.75E-9	1.87E-7
SQP	Pt	4.23E+1	3.37E+0	1.24E+1	5.80E+1	1.46E+0	8.73E+0	2.46E-1	-2.90E+1	3.94E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	9.22E+0	5.69E-2	2.32E+2	2.41E+2	2.45E-2	5.38E-1	3.74E-3	-5.09E+0	2.36E+2
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	9.22E+0	5.69E-2	2.32E+2	2.41E+2	2.45E-2	5.38E-1	3.74E-3	-5.09E+0	2.36E+2
PENRE	MJ	2.40E+2	4.29E+0	3.23E+1	2.77E+2	1.81E+0	1.16E+1	1.02E-1	-1.12E+2	1.79E+2
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	2.40E+2	4.29E+0	3.23E+1	2.77E+2	1.81E+0	1.16E+1	1.02E-1	-1.12E+2	1.79E+2
PET	MJ	2.49E+2	4.34E+0	2.64E+2	5.18E+2	1.84E+0	1.22E+1	1.05E-1	-1.17E+2	4.15E+2
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	6.78E-2	4.49E-4	2.48E-2	9.31E-2	1.93E-4	6.28E-3	1.18E-4	-2.53E-2	7.44E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	3.72E-5	1.01E-5	7.95E-5	1.27E-4	4.37E-6	1.78E-5	1.15E-7	-3.97E-5	1.09E-4
NHWD	kg	5.33E-1	2.43E-1	2.01E-2	7.96E-1	1.06E-1	5.36E-1	4.23E-1	-9.41E-2	1.77E+0
RWD	kg	1.66E-4	2.75E-5	2.11E-5	2.14E-4	1.16E-5	4.18E-5	6.27E-7	-4.49E-5	2.24E-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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