

Environmental Profile

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

Ecochain v3.5.71



Product: 3032521 - OsmaDrain Reducer BN 160x110 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	9.19E-1	3.98E-2	9.46E-2	1.05E+0	1.22E-2	3.34E-1	3.92E-3	-5.11E-1	8.92E-1
GWP-f	kg CO2 eq	9.11E-1	3.98E-2	9.23E-2	1.04E+0	1.22E-2	3.35E-1	3.92E-3	-5.08E-1	8.86E-1
GWP-b	kg CO2 eq	7.17E-3	-6.36E-6	2.23E-3	9.40E-3	7.42E-6	-3.43E-4	4.82E-6	-3.53E-3	5.54E-3
GWP-luluc	kg CO2 eq	7.44E-4	2.54E-5	8.01E-5	8.50E-4	4.32E-6	1.46E-4	1.02E-7	-3.25E-4	6.75E-4
ODP	kg CFC11 eq	4.85E-7	8.17E-9	8.12E-9	5.01E-7	2.81E-9	3.93E-8	1.44E-10	-2.51E-7	2.93E-7
AP	mol H+ eq	4.25E-3	1.13E-3	5.03E-4	5.88E-3	6.96E-5	6.73E-4	3.50E-6	-1.92E-3	4.70E-3
EP-fw	kg P eq	4.07E-5	1.89E-7	1.29E-6	4.21E-5	1.01E-7	4.85E-6	4.59E-9	-1.85E-5	2.86E-5
EP-m	kg N eq	7.09E-4	2.81E-4	9.78E-5	1.09E-3	2.49E-5	1.63E-4	2.28E-6	-3.32E-4	9.46E-4
EP-T	mol N eq	7.77E-3	3.12E-3	1.07E-3	1.20E-2	2.74E-4	1.80E-3	1.39E-5	-3.54E-3	1.05E-2
POCP	kg NMVOC eq	2.69E-3	8.12E-4	4.63E-4	3.97E-3	7.84E-5	5.40E-4	4.81E-6	-1.24E-3	3.35E-3
ADP-mm	kg Sb eq	5.18E-4	4.11E-7	2.31E-6	5.21E-4	3.16E-7	2.66E-6	3.51E-9	-1.03E-5	5.14E-4
ADP-f	MJ	2.37E+1	5.24E-1	1.02E+0	2.52E+1	1.87E-1	1.85E+0	1.05E-2	-1.25E+1	1.48E+1
WDP	m3 depriv.	1.48E+0	9.19E-4	3.06E-2	1.51E+0	5.75E-4	7.27E-2	7.18E-5	-7.26E-1	8.59E-1
PM	disease inc.	2.87E-8	1.59E-9	3.45E-9	3.37E-8	1.10E-9	8.40E-9	7.22E-11	-1.23E-8	3.10E-8
IR	kBq U-235 eq	5.13E-2	2.26E-3	2.48E-3	5.60E-2	8.19E-4	6.47E-3	4.82E-5	-2.34E-2	4.00E-2
ETP-fw	CTUe	1.93E+1	3.54E-1	2.71E+0	2.24E+1	1.52E-1	1.40E+1	1.55E-1	-6.96E+0	2.97E+1
HTP-c	CTUh	6.90E-10	2.18E-11	1.06E-10	8.18E-10	5.42E-12	2.08E-10	2.90E-13	-2.65E-10	7.67E-10
HTP-nc	CTUh	2.20E-8	3.13E-10	5.60E-9	2.79E-8	1.81E-10	4.93E-9	3.00E-11	-9.18E-9	2.39E-8
SQP	Pt	3.04E+0	1.40E-1	3.53E-1	3.53E+0	1.60E-1	1.15E+0	2.68E-2	-1.29E+0	3.58E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.13E+0	4.26E-3	5.69E+0	6.82E+0	2.69E-3	1.33E-1	3.90E-4	-5.27E-1	6.43E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.13E+0	4.26E-3	5.69E+0	6.82E+0	2.69E-3	1.33E-1	3.90E-4	-5.27E-1	6.43E+0
PENRE	MJ	2.54E+1	5.57E-1	1.08E+0	2.70E+1	1.99E-1	1.97E+0	1.11E-2	-1.35E+1	1.57E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	2.54E+1	5.57E-1	1.08E+0	2.70E+1	1.99E-1	1.97E+0	1.11E-2	-1.35E+1	1.57E+1
PET	MJ	2.65E+1	5.61E-1	6.77E+0	3.38E+1	2.02E-1	2.10E+0	1.15E-2	-1.40E+1	2.22E+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	1.66E-2	3.31E-5	8.97E-4	1.75E-2	2.12E-5	1.99E-3	1.28E-5	-7.61E-3	1.19E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	7.88E-5	6.36E-7	8.84E-6	8.83E-5	4.79E-7	2.99E-6	1.28E-8	-1.01E-5	8.17E-5
NHWD	kg	8.76E-2	6.93E-3	1.82E-3	9.64E-2	1.16E-2	6.80E-2	4.65E-2	-3.86E-2	1.84E-1
RWD	kg	4.60E-5	3.63E-6	2.34E-6	5.20E-5	1.27E-6	6.93E-6	6.83E-8	-2.06E-5	3.97E-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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