

Environmental Profile

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

Ecochain v3.5.71



Product: 3032502 - OsmaDrain Reducer BN 110x82 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	4.76E-1	1.87E-2	4.87E-2	5.44E-1	5.92E-3	2.02E-1	2.00E-3	-2.59E-1	4.94E-1
GWP-f	kg CO2 eq	4.73E-1	1.87E-2	4.75E-2	5.39E-1	5.91E-3	2.02E-1	2.00E-3	-2.58E-1	4.92E-1
GWP-b	kg CO2 eq	2.79E-3	-3.16E-6	1.20E-3	3.99E-3	3.59E-6	-1.57E-4	2.42E-6	-1.63E-3	2.21E-3
GWP-luluc	kg CO2 eq	3.85E-4	1.20E-5	4.04E-5	4.37E-4	2.09E-6	6.91E-5	5.13E-8	-1.53E-4	3.56E-4
ODP	kg CFC11 eq	2.37E-7	3.83E-9	4.26E-9	2.45E-7	1.36E-9	1.87E-8	7.20E-11	-1.19E-7	1.46E-7
AP	mol H+ eq	2.24E-3	5.34E-4	2.57E-4	3.03E-3	3.37E-5	3.25E-4	1.75E-6	-9.20E-4	2.47E-3
EP-fw	kg P eq	2.05E-5	8.79E-8	6.59E-7	2.13E-5	4.87E-8	2.30E-6	2.31E-9	-8.69E-6	1.49E-5
EP-m	kg N eq	3.73E-4	1.33E-4	5.05E-5	5.57E-4	1.21E-5	7.95E-5	1.22E-6	-1.61E-4	4.89E-4
EP-T	mol N eq	4.11E-3	1.48E-3	5.50E-4	6.13E-3	1.33E-4	8.77E-4	6.99E-6	-1.71E-3	5.44E-3
POCP	kg NMVOC eq	1.45E-3	3.85E-4	2.41E-4	2.08E-3	3.80E-5	2.62E-4	2.42E-6	-6.02E-4	1.78E-3
ADP-mm	kg Sb eq	2.68E-4	1.89E-7	1.17E-6	2.69E-4	1.53E-7	1.26E-6	1.76E-9	-5.32E-6	2.66E-4
ADP-f	MJ	1.23E+1	2.46E-1	5.25E-1	1.31E+1	9.08E-2	8.81E-1	5.26E-3	-6.22E+0	7.83E+0
WDP	m3 depriv.	7.29E-1	4.27E-4	1.59E-2	7.45E-1	2.79E-4	3.49E-2	3.64E-5	-3.40E-1	4.41E-1
PM	disease inc.	1.60E-8	7.37E-10	1.75E-9	1.85E-8	5.34E-10	4.00E-9	3.62E-11	-5.88E-9	1.72E-8
IR	kBq U-235 eq	2.67E-2	1.06E-3	1.29E-3	2.91E-2	3.97E-4	3.08E-3	2.42E-5	-1.11E-2	2.15E-2
ETP-fw	CTUe	1.01E+1	1.65E-1	1.37E+0	1.16E+1	7.37E-2	6.70E+0	7.41E-2	-3.29E+0	1.52E+1
HTP-c	CTUh	3.50E-10	1.02E-11	5.39E-11	4.14E-10	2.62E-12	1.00E-10	1.46E-13	-1.25E-10	3.92E-10
HTP-nc	CTUh	1.10E-8	1.46E-10	2.93E-9	1.41E-8	8.79E-11	2.37E-9	1.45E-11	-4.30E-9	1.22E-8
SQP	Pt	1.64E+0	6.36E-2	1.79E-1	1.89E+0	7.77E-2	5.45E-1	1.34E-2	-6.17E-1	1.91E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	5.75E-1	1.98E-3	2.86E+0	3.44E+0	1.30E-3	6.34E-2	1.97E-4	-2.48E-1	3.25E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	5.75E-1	1.98E-3	2.86E+0	3.44E+0	1.30E-3	6.34E-2	1.97E-4	-2.48E-1	3.25E+0
PENRE	MJ	1.32E+1	2.61E-1	5.57E-1	1.40E+1	9.64E-2	9.37E-1	5.58E-3	-6.71E+0	8.34E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.32E+1	2.61E-1	5.57E-1	1.40E+1	9.64E-2	9.37E-1	5.58E-3	-6.71E+0	8.34E+0
PET	MJ	1.38E+1	2.63E-1	3.42E+0	1.74E+1	9.77E-2	1.00E+0	5.78E-3	-6.96E+0	1.16E+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	8.48E-3	1.54E-5	4.63E-4	8.96E-3	1.03E-5	9.92E-4	6.43E-6	-3.59E-3	6.38E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	3.95E-5	2.94E-7	4.73E-6	4.45E-5	2.32E-7	1.45E-6	6.42E-9	-5.07E-6	4.11E-5
NHWD	kg	4.57E-2	3.08E-3	9.70E-4	4.98E-2	5.63E-3	3.32E-2	2.32E-2	-1.82E-2	9.36E-2
RWD	kg	2.49E-5	1.70E-6	1.25E-6	2.79E-5	6.17E-7	3.29E-6	3.42E-8	-9.87E-6	2.19E-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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