

Environmental Profile

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

Ecochain v3.5.71



Product: 3036796 - OsmaDrain 160mm Riser for 4D900/1 BN P/E
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	1.72E+0	8.07E-2	1.52E-1	1.95E+0	2.64E-2	6.59E-1	7.13E-3	-9.61E-1	1.68E+0
GWP-f	kg CO2 eq	1.70E+0	8.06E-2	1.47E-1	1.93E+0	2.64E-2	6.59E-1	7.13E-3	-9.53E-1	1.67E+0
GWP-b	kg CO2 eq	1.40E-2	-1.36E-5	5.12E-3	1.91E-2	1.60E-5	-6.98E-4	9.25E-6	-6.73E-3	1.17E-2
GWP-luluc	kg CO2 eq	1.32E-3	5.17E-5	1.04E-4	1.47E-3	9.34E-6	3.07E-4	1.95E-7	-6.24E-4	1.17E-3
ODP	kg CFC11 eq	9.73E-7	1.65E-8	1.54E-8	1.00E-6	6.08E-9	8.17E-8	2.97E-10	-4.83E-7	6.10E-7
AP	mol H+ eq	7.66E-3	2.30E-3	7.43E-4	1.07E-2	1.50E-4	1.42E-3	7.07E-6	-3.64E-3	8.64E-3
EP-fw	kg P eq	7.52E-5	3.79E-7	1.97E-6	7.76E-5	2.17E-7	1.02E-5	8.81E-9	-3.55E-5	5.24E-5
EP-m	kg N eq	1.28E-3	5.74E-4	1.64E-4	2.02E-3	5.38E-5	3.44E-4	4.27E-6	-6.29E-4	1.79E-3
EP-T	mol N eq	1.38E-2	6.38E-3	1.74E-3	2.19E-2	5.93E-4	3.79E-3	2.83E-5	-6.69E-3	1.96E-2
POCP	kg NMVOC eq	4.78E-3	1.66E-3	8.37E-4	7.28E-3	1.70E-4	1.14E-3	9.59E-6	-2.32E-3	6.28E-3
ADP-mm	kg Sb eq	4.79E-5	8.18E-7	2.97E-6	5.17E-5	6.83E-7	5.63E-6	6.99E-9	-1.96E-5	3.83E-5
ADP-f	MJ	4.39E+1	1.06E+0	1.62E+0	4.66E+1	4.05E-1	3.94E+0	2.15E-2	-2.32E+1	2.77E+1
WDP	m3 depriv.	2.91E+0	1.84E-3	5.34E-2	2.96E+0	1.24E-3	1.51E-1	1.17E-4	-1.39E+0	1.73E+0
PM	disease inc.	5.05E-8	3.18E-9	4.92E-9	5.86E-8	2.38E-9	1.80E-8	1.47E-10	-2.31E-8	5.60E-8
IR	kBq U-235 eq	9.28E-2	4.57E-3	4.53E-3	1.02E-1	1.77E-3	1.37E-2	9.84E-5	-4.48E-2	7.27E-2
ETP-fw	CTUe	2.87E+1	7.14E-1	3.74E+0	3.32E+1	3.29E-1	2.88E+1	3.17E-1	-1.35E+1	4.92E+1
HTP-c	CTUh	1.13E-9	4.42E-11	1.47E-10	1.33E-9	1.17E-11	4.23E-10	5.49E-13	-5.08E-10	1.25E-9
HTP-nc	CTUh	3.72E-8	6.28E-10	1.04E-8	4.82E-8	3.92E-10	1.02E-8	6.09E-11	-1.76E-8	4.13E-8
SQP	Pt	5.41E+0	2.75E-1	5.03E-1	6.19E+0	3.47E-1	2.48E+0	5.43E-2	-2.48E+0	6.59E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	2.12E+0	8.53E-3	7.12E+0	9.25E+0	5.81E-3	2.80E-1	7.64E-4	-1.01E+0	8.53E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	2.12E+0	8.53E-3	7.12E+0	9.25E+0	5.81E-3	2.80E-1	7.64E-4	-1.01E+0	8.53E+0
PENRE	MJ	4.71E+1	1.13E+0	1.72E+0	5.00E+1	4.30E-1	4.19E+0	2.28E-2	-2.50E+1	2.96E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	4.71E+1	1.13E+0	1.72E+0	5.00E+1	4.30E-1	4.19E+0	2.28E-2	-2.50E+1	2.96E+1
PET	MJ	4.92E+1	1.13E+0	8.84E+0	5.92E+1	4.36E-1	4.47E+0	2.35E-2	-2.60E+1	3.81E+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	3.08E-2	6.63E-5	1.48E-3	3.23E-2	4.59E-5	4.13E-3	2.63E-5	-1.45E-2	2.20E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	3.48E-5	1.27E-6	1.97E-5	5.57E-5	1.04E-6	6.33E-6	2.58E-8	-1.93E-5	4.38E-5
NHWD	kg	1.64E-1	1.33E-2	3.93E-3	1.82E-1	2.51E-2	1.46E-1	1.00E-1	-7.38E-2	3.79E-1
RWD	kg	8.12E-5	7.35E-6	5.21E-6	9.38E-5	2.76E-6	1.48E-5	1.40E-7	-3.95E-5	7.20E-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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