

Environmental Profile

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

Ecochain v3.5.71



Product: 3036802 - OsmaD Adjustable Bend 30° BN 110 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	6.42E-1	2.63E-2	6.60E-2	7.34E-1	8.05E-3	2.60E-1	3.81E-3	-3.78E-1	6.29E-1
GWP-f	kg CO2 eq	6.41E-1	2.62E-2	6.45E-2	7.32E-1	8.04E-3	2.60E-1	3.81E-3	-3.76E-1	6.28E-1
GWP-b	kg CO2 eq	8.80E-4	1.49E-5	1.46E-3	2.35E-3	4.88E-6	-3.16E-4	3.37E-6	-1.40E-3	6.51E-4
GWP-luluc	kg CO2 eq	2.18E-4	9.61E-6	5.76E-5	2.85E-4	2.85E-6	4.48E-5	6.69E-8	-8.83E-5	2.44E-4
ODP	kg CFC11 eq	3.36E-8	6.01E-9	5.52E-9	4.51E-8	1.85E-9	5.87E-9	9.66E-11	-3.22E-8	2.07E-8
AP	mol H+ eq	2.50E-3	1.82E-4	3.55E-4	3.04E-3	4.58E-5	2.48E-4	2.32E-6	-1.07E-3	2.26E-3
EP-fw	kg P eq	1.16E-5	2.11E-7	9.06E-7	1.27E-5	6.62E-8	1.29E-6	3.05E-9	-5.02E-6	9.04E-6
EP-m	kg N eq	4.02E-4	6.09E-5	6.78E-5	5.30E-4	1.64E-5	7.23E-5	1.83E-6	-1.90E-4	4.31E-4
EP-T	mol N eq	4.57E-3	6.72E-4	7.43E-4	5.99E-3	1.81E-4	7.96E-4	9.38E-6	-2.09E-3	4.88E-3
POCP	kg NMVOC eq	2.11E-3	1.89E-4	3.17E-4	2.62E-3	5.17E-5	2.50E-4	3.51E-6	-9.33E-4	1.99E-3
ADP-mm	kg Sb eq	4.49E-5	6.56E-7	1.66E-6	4.72E-5	2.08E-7	9.71E-7	2.34E-9	-3.25E-6	4.52E-5
ADP-f	MJ	2.22E+1	4.00E-1	7.14E-1	2.33E+1	1.23E-1	7.79E-1	7.06E-3	-1.14E+1	1.28E+1
WDP	m3 depriv.	4.51E-1	1.20E-3	2.11E-2	4.74E-1	3.79E-4	1.56E-2	3.91E-5	-2.33E-1	2.56E-1
PM	disease inc.	2.33E-8	2.30E-9	2.45E-9	2.81E-8	7.26E-10	4.03E-9	4.85E-11	-8.65E-9	2.42E-8
IR	kBq U-235 eq	1.93E-2	1.75E-3	1.70E-3	2.28E-2	5.40E-4	2.34E-3	3.28E-5	-6.65E-3	1.90E-2
ETP-fw	CTUe	4.91E+0	3.22E-1	1.93E+0	7.17E+0	1.00E-1	9.36E-1	6.93E-3	-1.82E+0	6.39E+0
HTP-c	CTUh	1.77E-10	1.17E-11	7.57E-11	2.64E-10	3.57E-12	1.06E-10	1.77E-13	-7.53E-11	2.99E-10
HTP-nc	CTUh	4.76E-9	3.80E-10	3.82E-9	8.96E-9	1.20E-10	1.32E-9	4.07E-12	-2.24E-9	8.16E-9
SQP	Pt	1.24E+0	3.31E-1	2.50E-1	1.82E+0	1.06E-1	6.20E-1	1.81E-2	-3.82E-1	2.19E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	4.04E-1	5.61E-3	4.10E+0	4.51E+0	1.77E-3	3.84E-2	2.77E-4	-1.69E-1	4.38E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	4.04E-1	5.61E-3	4.10E+0	4.51E+0	1.77E-3	3.84E-2	2.77E-4	-1.69E-1	4.38E+0
PENRE	MJ	2.38E+1	4.24E-1	7.58E-1	2.50E+1	1.31E-1	8.30E-1	7.49E-3	-1.23E+1	1.37E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	2.38E+1	4.24E-1	7.58E-1	2.50E+1	1.31E-1	8.30E-1	7.49E-3	-1.23E+1	1.37E+1
PET	MJ	2.42E+1	4.30E-1	4.86E+0	2.95E+1	1.33E-1	8.68E-1	7.77E-3	-1.25E+1	1.80E+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	7.57E-3	4.42E-5	6.23E-4	8.24E-3	1.40E-5	4.96E-4	8.70E-6	-3.26E-3	5.50E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	3.93E-6	9.97E-7	5.82E-6	1.07E-5	3.16E-7	1.29E-6	8.53E-9	-3.37E-6	8.99E-6
NHWD	kg	2.88E-2	2.39E-2	1.21E-3	5.39E-2	7.65E-3	3.89E-2	3.10E-2	-1.09E-2	1.21E-1
RWD	kg	2.07E-5	2.72E-6	1.54E-6	2.50E-5	8.40E-7	2.97E-6	4.61E-8	-6.01E-6	2.28E-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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