

Environmental Profile

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

Ecochain v3.5.71



Product: 3032101 - OsmaD UnJunc 45° BN 160x110x160 SN8 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	3.91E+0	1.70E-1	4.03E-1	4.49E+0	5.18E-2	1.42E+0	1.68E-2	-2.18E+0	3.80E+0
GWP-f	kg CO2 eq	3.88E+0	1.70E-1	3.93E-1	4.45E+0	5.17E-2	1.43E+0	1.68E-2	-2.16E+0	3.78E+0
GWP-b	kg CO2 eq	2.84E-2	-2.29E-5	9.86E-3	3.82E-2	3.14E-5	-1.47E-3	2.05E-5	-1.49E-2	2.19E-2
GWP-luluc	kg CO2 eq	3.13E-3	1.07E-4	3.35E-4	3.58E-3	1.83E-5	6.08E-4	4.31E-7	-1.37E-3	2.84E-3
ODP	kg CFC11 eq	2.02E-6	3.50E-8	3.51E-8	2.09E-6	1.19E-8	1.63E-7	6.10E-10	-1.05E-6	1.21E-6
AP	mol H+ eq	1.81E-2	4.68E-3	2.13E-3	2.49E-2	2.95E-4	2.82E-3	1.48E-5	-8.15E-3	1.99E-2
EP-fw	kg P eq	1.71E-4	8.24E-7	5.46E-6	1.77E-4	4.26E-7	2.02E-5	1.94E-8	-7.79E-5	1.20E-4
EP-m	kg N eq	3.01E-3	1.17E-3	4.18E-4	4.60E-3	1.05E-4	6.85E-4	9.98E-6	-1.41E-3	3.99E-3
EP-T	mol N eq	3.30E-2	1.30E-2	4.55E-3	5.06E-2	1.16E-3	7.56E-3	5.91E-5	-1.50E-2	4.43E-2
POCP	kg NMVOC eq	1.16E-2	3.38E-3	1.99E-3	1.70E-2	3.32E-4	2.27E-3	2.05E-5	-5.27E-3	1.43E-2
ADP-mm	kg Sb eq	2.14E-3	1.84E-6	9.67E-6	2.15E-3	1.34E-6	1.11E-5	1.49E-8	-4.33E-5	2.12E-3
ADP-f	MJ	1.02E+2	2.25E+0	4.34E+0	1.09E+2	7.94E-1	7.77E+0	4.45E-2	-5.34E+1	6.38E+1
WDP	m3 depriv.	6.19E+0	4.05E-3	1.31E-1	6.33E+0	2.44E-3	3.02E-1	2.97E-4	-3.06E+0	3.57E+0
PM	disease inc.	1.25E-7	7.07E-9	1.45E-8	1.47E-7	4.67E-9	3.53E-8	3.06E-10	-5.22E-8	1.35E-7
IR	kBq U-235 eq	2.21E-1	9.68E-3	1.07E-2	2.41E-1	3.47E-3	2.71E-2	2.05E-4	-9.82E-2	1.74E-1
ETP-fw	CTUe	8.12E+1	1.53E+0	1.14E+1	9.41E+1	6.45E-1	5.78E+1	6.41E-1	-2.93E+1	1.24E+2
HTP-c	CTUh	2.89E-9	9.22E-11	4.47E-10	3.43E-9	2.30E-11	8.72E-10	1.23E-12	-1.12E-9	3.21E-9
HTP-nc	CTUh	9.17E-8	1.37E-9	2.42E-8	1.17E-7	7.69E-10	2.05E-8	1.25E-10	-3.86E-8	1.00E-7
SQP	Pt	1.31E+1	6.49E-1	1.49E+0	1.52E+1	6.80E-1	4.86E+0	1.14E-1	-5.43E+0	1.54E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	4.80E+0	1.88E-2	2.38E+1	2.86E+1	1.14E-2	5.56E-1	1.66E-3	-2.22E+0	2.69E+1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	4.80E+0	1.88E-2	2.38E+1	2.86E+1	1.14E-2	5.56E-1	1.66E-3	-2.22E+0	2.69E+1
PENRE	MJ	1.09E+2	2.39E+0	4.61E+0	1.16E+2	8.43E-1	8.27E+0	4.72E-2	-5.75E+1	6.81E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.09E+2	2.39E+0	4.61E+0	1.16E+2	8.43E-1	8.27E+0	4.72E-2	-5.75E+1	6.81E+1
PET	MJ	1.14E+2	2.41E+0	2.84E+1	1.45E+2	8.55E-1	8.83E+0	4.89E-2	-5.97E+1	9.50E+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	7.03E-2	1.46E-4	3.83E-3	7.43E-2	8.99E-5	8.32E-3	5.45E-5	-3.21E-2	5.06E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	3.22E-4	2.84E-6	3.89E-5	3.64E-4	2.03E-6	1.26E-5	5.42E-8	-4.24E-5	3.36E-4
NHWD	kg	3.69E-1	3.38E-2	7.98E-3	4.10E-1	4.92E-2	2.87E-1	1.97E-1	-1.62E-1	7.82E-1
RWD	kg	2.02E-4	1.56E-5	1.03E-5	2.28E-4	5.40E-6	2.91E-5	2.90E-7	-8.66E-5	1.76E-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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