

Environmental Profile

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

Ecochain v3.5.71



Product: 3032511 - OsmaDrain Junction 45° BN 110 SN8 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	1.73E+0	7.22E-2	1.58E-1	1.96E+0	2.19E-2	6.64E-1	7.06E-3	-9.60E-1	1.69E+0
GWP-f	kg CO2 eq	1.72E+0	7.22E-2	1.54E-1	1.94E+0	2.19E-2	6.64E-1	7.06E-3	-9.54E-1	1.68E+0
GWP-b	kg CO2 eq	1.09E-2	-1.08E-5	4.10E-3	1.49E-2	1.33E-5	-6.15E-4	8.68E-6	-6.36E-3	8.00E-3
GWP-luluc	kg CO2 eq	1.39E-3	4.58E-5	1.28E-4	1.57E-3	7.76E-6	2.62E-4	1.83E-7	-5.85E-4	1.25E-3
ODP	kg CFC11 eq	8.71E-7	1.49E-8	1.41E-8	9.00E-7	5.05E-9	7.05E-8	2.58E-10	-4.53E-7	5.22E-7
AP	mol H+ eq	7.96E-3	2.02E-3	8.23E-4	1.08E-2	1.25E-4	1.22E-3	6.28E-6	-3.49E-3	8.67E-3
EP-fw	kg P eq	7.54E-5	3.46E-7	2.13E-6	7.79E-5	1.80E-7	8.70E-6	8.24E-9	-3.33E-5	5.34E-5
EP-m	kg N eq	1.34E-3	5.05E-4	1.65E-4	2.01E-3	4.47E-5	2.97E-4	4.12E-6	-6.07E-4	1.74E-3
EP-T	mol N eq	1.46E-2	5.61E-3	1.79E-3	2.20E-2	4.92E-4	3.27E-3	2.50E-5	-6.46E-3	1.94E-2
POCP	kg NMVOC eq	5.15E-3	1.46E-3	7.96E-4	7.41E-3	1.41E-4	9.82E-4	8.65E-6	-2.27E-3	6.27E-3
ADP-mm	kg Sb eq	9.36E-4	7.61E-7	3.68E-6	9.40E-4	5.67E-7	4.79E-6	6.30E-9	-1.85E-5	9.27E-4
ADP-f	MJ	4.48E+1	9.54E-1	1.70E+0	4.74E+1	3.37E-1	3.33E+0	1.89E-2	-2.32E+1	2.79E+1
WDP	m3 depriv.	2.71E+0	1.69E-3	5.21E-2	2.76E+0	1.03E-3	1.30E-1	1.27E-4	-1.31E+0	1.59E+0
PM	disease inc.	5.45E-8	2.94E-9	5.60E-9	6.30E-8	1.98E-9	1.52E-8	1.30E-10	-2.22E-8	5.81E-8
IR	kBq U-235 eq	9.45E-2	4.11E-3	4.27E-3	1.03E-1	1.47E-3	1.16E-2	8.66E-5	-4.21E-2	7.40E-2
ETP-fw	CTUe	3.57E+1	6.46E-1	4.37E+0	4.07E+1	2.73E-1	2.51E+1	2.77E-1	-1.26E+1	5.38E+1
HTP-c	CTUh	1.26E-9	3.94E-11	1.71E-10	1.47E-9	9.73E-12	3.80E-10	5.20E-13	-4.79E-10	1.38E-9
HTP-nc	CTUh	4.00E-8	5.75E-10	9.69E-9	5.03E-8	3.26E-10	8.89E-9	5.38E-11	-1.65E-8	4.31E-8
SQP	Pt	5.78E+0	2.64E-1	5.73E-1	6.62E+0	2.88E-1	2.08E+0	4.82E-2	-2.33E+0	6.70E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	2.12E+0	7.85E-3	9.00E+0	1.11E+1	4.83E-3	2.39E-1	7.01E-4	-9.48E-1	1.04E+1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	2.12E+0	7.85E-3	9.00E+0	1.11E+1	4.83E-3	2.39E-1	7.01E-4	-9.48E-1	1.04E+1
PENRE	MJ	4.80E+1	1.01E+0	1.80E+0	5.08E+1	3.57E-1	3.55E+0	2.00E-2	-2.50E+1	2.97E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	4.80E+1	1.01E+0	1.80E+0	5.08E+1	3.57E-1	3.55E+0	2.00E-2	-2.50E+1	2.97E+1
PET	MJ	5.01E+1	1.02E+0	1.08E+1	6.19E+1	3.62E-1	3.79E+0	2.07E-2	-2.60E+1	4.02E+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	3.11E-2	6.11E-5	1.51E-3	3.27E-2	3.81E-5	3.59E-3	2.31E-5	-1.37E-2	2.26E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.42E-4	1.18E-6	1.61E-5	1.59E-4	8.61E-7	5.40E-6	2.30E-8	-1.88E-5	1.47E-4
NHWD	kg	1.63E-1	1.34E-2	3.29E-3	1.79E-1	2.09E-2	1.25E-1	8.34E-2	-6.95E-2	3.39E-1
RWD	kg	8.50E-5	6.61E-6	4.26E-6	9.58E-5	2.29E-6	1.25E-5	1.23E-7	-3.72E-5	7.35E-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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