

Environmental Profile

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

Ecochain v3.5.71



Product: 3032526 - OsmaDrain Junction 87.5° BN 160 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	4.09E+0	1.77E-1	4.19E-1	4.69E+0	5.40E-2	1.49E+0	1.77E-2	-2.27E+0	3.97E+0
GWP-f	kg CO2 eq	4.06E+0	1.77E-1	4.09E-1	4.64E+0	5.39E-2	1.49E+0	1.77E-2	-2.26E+0	3.95E+0
GWP-b	kg CO2 eq	2.82E-2	-2.10E-5	1.04E-2	3.87E-2	3.27E-5	-1.54E-3	2.14E-5	-1.55E-2	2.17E-2
GWP-luluc	kg CO2 eq	3.25E-3	1.10E-4	3.46E-4	3.71E-3	1.91E-5	6.27E-4	4.49E-7	-1.42E-3	2.94E-3
ODP	kg CFC11 eq	2.08E-6	3.66E-8	3.68E-8	2.15E-6	1.24E-8	1.67E-7	6.35E-10	-1.09E-6	1.24E-6
AP	mol H+ eq	1.89E-2	4.80E-3	2.21E-3	2.59E-2	3.07E-4	2.91E-3	1.54E-5	-8.48E-3	2.07E-2
EP-fw	kg P eq	1.77E-4	8.73E-7	5.67E-6	1.84E-4	4.44E-7	2.08E-5	2.03E-8	-8.07E-5	1.25E-4
EP-m	kg N eq	3.14E-3	1.20E-3	4.36E-4	4.78E-3	1.10E-4	7.10E-4	1.06E-5	-1.47E-3	4.14E-3
EP-T	mol N eq	3.45E-2	1.34E-2	4.74E-3	5.26E-2	1.21E-3	7.82E-3	6.16E-5	-1.56E-2	4.61E-2
POCP	kg NMVOC eq	1.22E-2	3.48E-3	2.09E-3	1.78E-2	3.46E-4	2.35E-3	2.13E-5	-5.50E-3	1.50E-2
ADP-mm	kg Sb eq	2.21E-3	1.98E-6	9.98E-6	2.23E-3	1.39E-6	1.15E-5	1.55E-8	-4.48E-5	2.19E-3
ADP-f	MJ	1.07E+2	2.36E+0	4.52E+0	1.14E+2	8.28E-1	8.04E+0	4.64E-2	-5.59E+1	6.72E+1
WDP	m3 depriv.	6.39E+0	4.32E-3	1.37E-1	6.53E+0	2.54E-3	3.11E-1	3.07E-4	-3.17E+0	3.67E+0
PM	disease inc.	1.32E-7	7.57E-9	1.51E-8	1.55E-7	4.87E-9	3.66E-8	3.19E-10	-5.44E-8	1.42E-7
IR	kBq U-235 eq	2.32E-1	1.02E-2	1.12E-2	2.54E-1	3.62E-3	2.80E-2	2.13E-4	-1.02E-1	1.84E-1
ETP-fw	CTUe	8.42E+1	1.61E+0	1.18E+1	9.76E+1	6.72E-1	5.92E+1	6.56E-1	-3.03E+1	1.28E+2
HTP-c	CTUh	2.99E-9	9.59E-11	4.62E-10	3.55E-9	2.39E-11	9.03E-10	1.27E-12	-1.16E-9	3.32E-9
HTP-nc	CTUh	9.46E-8	1.46E-9	2.53E-8	1.21E-7	8.01E-10	2.11E-8	1.28E-10	-4.00E-8	1.03E-7
SQP	Pt	1.38E+1	7.14E-1	1.54E+0	1.60E+1	7.08E-1	5.04E+0	1.19E-1	-5.63E+0	1.63E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	5.00E+0	2.00E-2	2.45E+1	2.95E+1	1.19E-2	5.73E-1	1.74E-3	-2.30E+0	2.78E+1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	5.00E+0	2.00E-2	2.45E+1	2.95E+1	1.19E-2	5.73E-1	1.74E-3	-2.30E+0	2.78E+1
PENRE	MJ	1.15E+2	2.50E+0	4.79E+0	1.22E+2	8.79E-1	8.56E+0	4.92E-2	-6.02E+1	7.16E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.15E+2	2.50E+0	4.79E+0	1.22E+2	8.79E-1	8.56E+0	4.92E-2	-6.02E+1	7.16E+1
PET	MJ	1.20E+2	2.52E+0	2.93E+1	1.52E+2	8.90E-1	9.13E+0	5.10E-2	-6.25E+1	9.94E+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	7.33E-2	1.56E-4	3.99E-3	7.74E-2	9.36E-5	8.57E-3	5.68E-5	-3.34E-2	5.27E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	3.31E-4	3.05E-6	4.11E-5	3.75E-4	2.12E-6	1.30E-5	5.65E-8	-4.40E-5	3.46E-4
NHWD	kg	3.82E-1	3.82E-2	8.42E-3	4.29E-1	5.13E-2	2.99E-1	2.05E-1	-1.68E-1	8.16E-1
RWD	kg	2.14E-4	1.63E-5	1.09E-5	2.42E-4	5.63E-6	3.01E-5	3.02E-7	-8.97E-5	1.88E-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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