

Environmental Profile

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

Ecochain v3.5.71



Product: 3031982 - OsmaDrain Bend 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	3.27E+0	1.41E-1	3.47E-1	3.76E+0	4.32E-2	1.19E+0	1.40E-2	-1.82E+0	3.19E+0
GWP-f	kg CO2 eq	3.24E+0	1.41E-1	3.39E-1	3.72E+0	4.32E-2	1.19E+0	1.40E-2	-1.80E+0	3.17E+0
GWP-b	kg CO2 eq	2.36E-2	-1.90E-5	8.51E-3	3.21E-2	2.62E-5	-1.23E-3	1.71E-5	-1.24E-2	1.85E-2
GWP-luluc	kg CO2 eq	2.62E-3	8.89E-5	2.89E-4	2.99E-3	1.53E-5	5.07E-4	3.60E-7	-1.14E-3	2.38E-3
ODP	kg CFC11 eq	1.68E-6	2.92E-8	3.03E-8	1.74E-6	9.95E-9	1.36E-7	5.09E-10	-8.76E-7	1.01E-6
AP	mol H+ eq	1.51E-2	3.90E-3	1.83E-3	2.08E-2	2.46E-4	2.35E-3	1.24E-5	-6.80E-3	1.67E-2
EP-fw	kg P eq	1.43E-4	6.88E-7	4.71E-6	1.48E-4	3.55E-7	1.68E-5	1.62E-8	-6.50E-5	1.00E-4
EP-m	kg N eq	2.52E-3	9.74E-4	3.60E-4	3.85E-3	8.80E-5	5.72E-4	8.34E-6	-1.17E-3	3.34E-3
EP-T	mol N eq	2.76E-2	1.08E-2	3.92E-3	4.23E-2	9.70E-4	6.30E-3	4.93E-5	-1.25E-2	3.71E-2
POCP	kg NMVOC eq	9.70E-3	2.82E-3	1.72E-3	1.42E-2	2.77E-4	1.89E-3	1.71E-5	-4.40E-3	1.20E-2
ADP-mm	kg Sb eq	1.79E-3	1.53E-6	8.35E-6	1.80E-3	1.12E-6	9.29E-6	1.24E-8	-3.61E-5	1.78E-3
ADP-f	MJ	8.52E+1	1.87E+0	3.74E+0	9.08E+1	6.63E-1	6.48E+0	3.71E-2	-4.46E+1	5.34E+1
WDP	m3 depriv.	5.16E+0	3.38E-3	1.13E-1	5.28E+0	2.03E-3	2.52E-1	2.48E-4	-2.55E+0	2.98E+0
PM	disease inc.	1.04E-7	5.90E-9	1.25E-8	1.23E-7	3.90E-9	2.95E-8	2.55E-10	-4.35E-8	1.13E-7
IR	kBq U-235 eq	1.85E-1	8.08E-3	9.22E-3	2.02E-1	2.90E-3	2.26E-2	1.71E-4	-8.19E-2	1.46E-1
ETP-fw	CTUe	6.78E+1	1.27E+0	9.82E+0	7.89E+1	5.38E-1	4.82E+1	5.34E-1	-2.44E+1	1.04E+2
HTP-c	CTUh	2.41E-9	7.69E-11	3.85E-10	2.88E-9	1.91E-11	7.27E-10	1.02E-12	-9.31E-10	2.69E-9
HTP-nc	CTUh	7.65E-8	1.15E-9	2.08E-8	9.85E-8	6.41E-10	1.71E-8	1.04E-10	-3.22E-8	8.42E-8
SQP	Pt	1.09E+1	5.43E-1	1.28E+0	1.28E+1	5.67E-1	4.05E+0	9.49E-2	-4.53E+0	1.30E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	4.01E+0	1.57E-2	2.05E+1	2.45E+1	9.51E-3	4.64E-1	1.39E-3	-1.85E+0	2.31E+1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	4.01E+0	1.57E-2	2.05E+1	2.45E+1	9.51E-3	4.64E-1	1.39E-3	-1.85E+0	2.31E+1
PENRE	MJ	9.13E+1	1.99E+0	3.98E+0	9.73E+1	7.04E-1	6.90E+0	3.94E-2	-4.80E+1	5.70E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	9.13E+1	1.99E+0	3.98E+0	9.73E+1	7.04E-1	6.90E+0	3.94E-2	-4.80E+1	5.70E+1
PET	MJ	9.54E+1	2.01E+0	2.45E+1	1.22E+2	7.13E-1	7.36E+0	4.08E-2	-4.98E+1	8.01E+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	5.87E-2	1.22E-4	3.30E-3	6.21E-2	7.50E-5	6.93E-3	4.55E-5	-2.68E-2	4.24E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	2.70E-4	2.37E-6	3.36E-5	3.06E-4	1.69E-6	1.05E-5	4.52E-8	-3.53E-5	2.83E-4
NHWD	kg	3.08E-1	2.83E-2	6.88E-3	3.43E-1	4.11E-2	2.40E-1	1.64E-1	-1.35E-1	6.53E-1
RWD	kg	1.69E-4	1.30E-5	8.89E-6	1.91E-4	4.51E-6	2.43E-5	2.42E-7	-7.22E-5	1.47E-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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