

Environmental Profile

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

Ecochain v3.5.71



Product: 3036422 - OsmaDrain Bend 30° BN 110 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	8.46E-1	3.51E-2	7.92E-2	9.60E-1	1.05E-2	3.32E-1	3.48E-3	-4.69E-1	8.37E-1
GWP-f	kg CO2 eq	8.42E-1	3.51E-2	7.71E-2	9.54E-1	1.05E-2	3.32E-1	3.48E-3	-4.66E-1	8.34E-1
GWP-b	kg CO2 eq	3.94E-3	-2.94E-6	1.97E-3	5.91E-3	6.38E-6	-3.04E-4	4.17E-6	-3.00E-3	2.61E-3
GWP-luluc	kg CO2 eq	6.67E-4	2.14E-5	6.54E-5	7.54E-4	3.72E-6	1.20E-4	8.76E-8	-2.74E-4	6.04E-4
ODP	kg CFC11 eq	3.96E-7	7.29E-9	6.95E-9	4.10E-7	2.42E-9	3.18E-8	1.24E-10	-2.11E-7	2.34E-7
AP	mol H+ eq	3.92E-3	9.14E-4	4.17E-4	5.25E-3	5.98E-5	5.66E-4	3.01E-6	-1.67E-3	4.21E-3
EP-fw	kg P eq	3.58E-5	1.78E-7	1.07E-6	3.70E-5	8.64E-8	3.99E-6	3.95E-9	-1.56E-5	2.55E-5
EP-m	kg N eq	6.52E-4	2.30E-4	8.22E-5	9.64E-4	2.14E-5	1.40E-4	2.11E-6	-2.91E-4	8.36E-4
EP-T	mol N eq	7.18E-3	2.56E-3	8.95E-4	1.06E-2	2.36E-4	1.54E-3	1.20E-5	-3.10E-3	9.31E-3
POCP	kg NMVOC eq	2.61E-3	6.67E-4	3.94E-4	3.67E-3	6.74E-5	4.62E-4	4.17E-6	-1.10E-3	3.10E-3
ADP-mm	kg Sb eq	4.32E-4	4.16E-7	1.89E-6	4.34E-4	2.72E-7	2.22E-6	3.02E-9	-8.65E-6	4.28E-4
ADP-f	MJ	2.24E+1	4.70E-1	8.53E-1	2.37E+1	1.61E-1	1.56E+0	9.04E-3	-1.14E+1	1.41E+1
WDP	m3 depriv.	1.26E+0	8.94E-4	2.59E-2	1.29E+0	4.95E-4	5.94E-2	6.04E-5	-6.14E-1	7.32E-1
PM	disease inc.	2.81E-8	1.58E-9	2.84E-9	3.25E-8	9.48E-10	7.15E-9	6.21E-11	-1.07E-8	3.00E-8
IR	kBq U-235 eq	4.68E-2	2.03E-3	2.11E-3	5.09E-2	7.05E-4	5.40E-3	4.16E-5	-1.98E-2	3.73E-2
ETP-fw	CTUe	1.70E+1	3.24E-1	2.23E+0	1.95E+1	1.31E-1	1.12E+1	1.24E-1	-5.88E+0	2.51E+1
HTP-c	CTUh	5.91E-10	1.88E-11	8.73E-11	6.98E-10	4.66E-12	1.80E-10	2.48E-13	-2.25E-10	6.58E-10
HTP-nc	CTUh	1.85E-8	3.00E-10	4.78E-9	2.36E-8	1.56E-10	4.08E-9	2.43E-11	-7.72E-9	2.02E-8
SQP	Pt	2.90E+0	1.57E-1	2.91E-1	3.35E+0	1.38E-1	9.83E-1	2.31E-2	-1.10E+0	3.40E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.02E+0	4.15E-3	4.63E+0	5.65E+0	2.31E-3	1.10E-1	3.39E-4	-4.45E-1	5.32E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.02E+0	4.15E-3	4.63E+0	5.65E+0	2.31E-3	1.10E-1	3.39E-4	-4.45E-1	5.32E+0
PENRE	MJ	2.40E+1	4.99E-1	9.05E-1	2.54E+1	1.71E-1	1.66E+0	9.59E-3	-1.23E+1	1.50E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	2.40E+1	4.99E-1	9.05E-1	2.54E+1	1.71E-1	1.66E+0	9.59E-3	-1.23E+1	1.50E+1
PET	MJ	2.51E+1	5.03E-1	5.53E+0	3.11E+1	1.73E-1	1.77E+0	9.93E-3	-1.27E+1	2.03E+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	1.51E-2	3.24E-5	7.53E-4	1.59E-2	1.82E-5	1.65E-3	1.11E-5	-6.50E-3	1.10E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	6.40E-5	6.42E-7	7.76E-6	7.24E-5	4.12E-7	2.53E-6	1.10E-8	-8.99E-6	6.63E-5
NHWD	kg	7.76E-2	8.81E-3	1.59E-3	8.80E-2	9.99E-3	6.01E-2	3.99E-2	-3.26E-2	1.65E-1
RWD	kg	4.35E-5	3.25E-6	2.06E-6	4.88E-5	1.10E-6	5.84E-6	5.88E-8	-1.75E-5	3.83E-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



Ecochain Technologies BV
H.J.E. Wenckebachweg 123, 1096 AM Amsterdam, The Netherlands
<https://www.ecochain.com>
+31 20 3035 777