

Environmental Profile

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

Ecochain v3.5.71



Product: 3036460 - OsmaDrain Bend LR 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

This document and supporting material contain confidential and proprietary business information of Wavin - UK - Chippenham - Verified. These materials may be printed or (photo) copied or otherwise used only with the written consent of Wavin - UK - Chippenham - Verified.

Results

Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	1.34E+0	5.78E-2	1.37E-1	1.53E+0	1.78E-2	4.86E-1	5.66E-3	-7.44E-1	1.30E+0
GWP-f	kg CO2 eq	1.32E+0	5.78E-2	1.33E-1	1.52E+0	1.78E-2	4.86E-1	5.66E-3	-7.39E-1	1.29E+0
GWP-b	kg CO2 eq	1.09E-2	-1.03E-5	3.25E-3	1.41E-2	1.08E-5	-4.95E-4	7.02E-6	-5.16E-3	8.47E-3
GWP-luluc	kg CO2 eq	1.09E-3	3.73E-5	1.16E-4	1.24E-3	6.29E-6	2.14E-4	1.48E-7	-4.77E-4	9.87E-4
ODP	kg CFC11 eq	7.16E-7	1.18E-8	1.18E-8	7.40E-7	4.09E-9	5.81E-8	2.09E-10	-3.68E-7	4.34E-7
AP	mol H+ eq	6.16E-3	1.67E-3	7.27E-4	8.56E-3	1.01E-4	9.89E-4	5.09E-6	-2.81E-3	6.85E-3
EP-fw	kg P eq	5.96E-5	2.70E-7	1.86E-6	6.17E-5	1.46E-7	7.14E-6	6.68E-9	-2.72E-5	4.19E-5
EP-m	kg N eq	1.03E-3	4.15E-4	1.41E-4	1.59E-3	3.62E-5	2.39E-4	3.26E-6	-4.85E-4	1.38E-3
EP-T	mol N eq	1.13E-2	4.61E-3	1.54E-3	1.74E-2	3.99E-4	2.64E-3	2.03E-5	-5.16E-3	1.53E-2
POCP	kg NMVOC eq	3.89E-3	1.20E-3	6.71E-4	5.75E-3	1.14E-4	7.91E-4	7.00E-6	-1.80E-3	4.87E-3
ADP-mm	kg Sb eq	7.70E-4	5.76E-7	3.34E-6	7.74E-4	4.60E-7	3.91E-6	5.11E-9	-1.51E-5	7.63E-4
ADP-f	MJ	3.42E+1	7.59E-1	1.48E+0	3.65E+1	2.73E-1	2.72E+0	1.53E-2	-1.81E+1	2.14E+1
WDP	m3 depriv.	2.18E+0	1.30E-3	4.43E-2	2.23E+0	8.37E-4	1.07E-1	1.04E-4	-1.06E+0	1.27E+0
PM	disease inc.	4.11E-8	2.25E-9	4.98E-9	4.83E-8	1.60E-9	1.23E-8	1.05E-10	-1.79E-8	4.44E-8
IR	kBq U-235 eq	7.43E-2	3.27E-3	3.59E-3	8.11E-2	1.19E-3	9.51E-3	7.02E-5	-3.42E-2	5.77E-2
ETP-fw	CTUe	2.84E+1	5.09E-1	3.91E+0	3.28E+1	2.21E-1	2.08E+1	2.30E-1	-1.02E+1	4.38E+1
HTP-c	CTUh	1.01E-9	3.18E-11	1.53E-10	1.20E-9	7.88E-12	3.04E-10	4.23E-13	-3.89E-10	1.12E-9
HTP-nc	CTUh	3.24E-8	4.46E-10	8.11E-9	4.10E-8	2.64E-10	7.26E-9	4.45E-11	-1.35E-8	3.51E-8
SQP	Pt	4.39E+0	1.90E-1	5.10E-1	5.09E+0	2.33E-1	1.68E+0	3.90E-2	-1.89E+0	5.15E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.65E+0	6.04E-3	8.21E+0	9.87E+0	3.91E-3	1.96E-1	5.66E-4	-7.72E-1	9.29E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.65E+0	6.04E-3	8.21E+0	9.87E+0	3.91E-3	1.96E-1	5.66E-4	-7.72E-1	9.29E+0
PENRE	MJ	3.67E+1	8.06E-1	1.57E+0	3.91E+1	2.90E-1	2.89E+0	1.62E-2	-1.95E+1	2.28E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	3.67E+1	8.06E-1	1.57E+0	3.91E+1	2.90E-1	2.89E+0	1.62E-2	-1.95E+1	2.28E+1
PET	MJ	3.84E+1	8.12E-1	9.77E+0	4.90E+1	2.93E-1	3.09E+0	1.68E-2	-2.03E+1	3.21E+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	2.42E-2	4.70E-5	1.30E-3	2.55E-2	3.09E-5	2.94E-3	1.87E-5	-1.11E-2	1.74E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.18E-4	8.94E-7	1.28E-5	1.31E-4	6.97E-7	4.38E-6	1.86E-8	-1.47E-5	1.22E-4
NHWD	kg	1.28E-1	9.03E-3	2.64E-3	1.40E-1	1.69E-2	9.91E-2	6.76E-2	-5.65E-2	2.67E-1
RWD	kg	6.60E-5	5.26E-6	3.40E-6	7.47E-5	1.85E-6	1.02E-5	9.94E-8	-3.02E-5	5.66E-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