

Environmental Profile

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

Ecochain v3.5.71



Product: 3039656 - Wavin UR Adaptor-TW Clay BN 150 SN8 D/S
 Unit: 1 piece
 Manufacturer: Wavin - UK - Chippenham - Verified

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



Wavin Osma UltraRib Corrugated pipe systems are designed for use in gravity drainage and sewerage installations at depths of up to 10 metres. Osma UltraRib is a fully socketed system of pipe and fittings which combines secure jointing with ease of installation.

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

A1 Raw material supply A2 Transport A3 Manufacturing

Construction process stage

A4 Transport gate to site
 A5 Assembly / Construction installation process

Use stage

B1 Use B2 Maintenance B3 Repair B4 Replacement B5 Refurbishment
 B6 Operational energy use B7 Operational water use

End-of-Life stage

C1 De-construction demolition C2 Transport C3 Waste processing
 C4 Disposal

Benefits and loads beyond the system boundaries

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	1.77E+0	6.50E-2	1.89E-1	2.02E+0	2.10E-2	8.29E-1	7.56E-3	-9.40E-1	1.94E+0
GWP-f	kg CO2 eq	1.76E+0	6.50E-2	1.85E-1	2.01E+0	2.10E-2	8.29E-1	7.56E-3	-9.34E-1	1.93E+0
GWP-b	kg CO2 eq	7.03E-3	-9.03E-6	4.00E-3	1.10E-2	1.27E-5	-5.34E-4	8.96E-6	-5.42E-3	5.09E-3
GWP-luluc	kg CO2 eq	1.40E-3	4.10E-5	1.68E-4	1.61E-3	7.42E-6	2.34E-4	1.87E-7	-5.17E-4	1.33E-3
ODP	kg CFC11 eq	8.29E-7	1.34E-8	1.55E-8	8.58E-7	4.83E-9	6.31E-8	2.64E-10	-4.01E-7	5.26E-7
AP	mol H+ eq	8.39E-3	1.80E-3	1.03E-3	1.12E-2	1.19E-4	1.12E-3	6.42E-6	-3.18E-3	9.28E-3
EP-fw	kg P eq	7.37E-5	3.15E-7	2.61E-6	7.66E-5	1.72E-7	7.80E-6	8.44E-9	-2.94E-5	5.52E-5
EP-m	kg N eq	1.39E-3	4.50E-4	1.94E-4	2.03E-3	4.27E-5	2.78E-4	5.04E-6	-5.61E-4	1.80E-3
EP-T	mol N eq	1.53E-2	5.00E-3	2.13E-3	2.25E-2	4.71E-4	3.06E-3	2.56E-5	-5.99E-3	2.00E-2
POCP	kg NMVOC eq	5.61E-3	1.30E-3	8.98E-4	7.82E-3	1.35E-4	9.10E-4	8.92E-6	-2.12E-3	6.74E-3
ADP-mm	kg Sb eq	9.25E-4	6.99E-7	4.86E-6	9.30E-4	5.42E-7	4.30E-6	6.43E-9	-1.99E-5	9.15E-4
ADP-f	MJ	4.65E+1	8.61E-1	2.05E+0	4.94E+1	3.22E-1	3.01E+0	1.93E-2	-2.24E+1	3.04E+1
WDP	m3 depriv.	2.54E+0	1.55E-3	6.00E-2	2.60E+0	9.88E-4	1.19E-1	1.25E-4	-1.15E+0	1.58E+0
PM	disease inc.	6.51E-8	2.69E-9	7.08E-9	7.49E-8	1.89E-9	1.37E-8	1.32E-10	-2.05E-8	7.01E-8
IR	kBq U-235 eq	1.03E-1	3.71E-3	4.80E-3	1.12E-1	1.41E-3	1.05E-2	8.90E-5	-3.79E-2	8.60E-2
ETP-fw	CTUe	3.66E+1	5.85E-1	5.61E+0	4.28E+1	2.61E-1	2.27E+1	2.51E-1	-1.12E+1	5.48E+1
HTP-c	CTUh	1.24E-9	3.54E-11	2.20E-10	1.50E-9	9.30E-12	3.38E-10	5.28E-13	-4.26E-10	1.42E-9
HTP-nc	CTUh	3.85E-8	5.24E-10	1.08E-8	4.98E-8	3.11E-10	8.06E-9	4.97E-11	-1.45E-8	4.37E-8
SQP	Pt	6.37E+0	2.46E-1	7.25E-1	7.34E+0	2.75E-1	1.87E+0	4.92E-2	-2.12E+0	7.41E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	2.09E+0	7.17E-3	1.20E+1	1.41E+1	4.62E-3	2.15E-1	7.36E-4	-8.41E-1	1.35E+1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	2.09E+0	7.17E-3	1.20E+1	1.41E+1	4.62E-3	2.15E-1	7.36E-4	-8.41E-1	1.35E+1
PENRE	MJ	4.99E+1	9.14E-1	2.17E+0	5.29E+1	3.42E-1	3.20E+0	2.05E-2	-2.42E+1	3.23E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	4.99E+1	9.14E-1	2.17E+0	5.29E+1	3.42E-1	3.20E+0	2.05E-2	-2.42E+1	3.23E+1
PET	MJ	5.19E+1	9.21E-1	1.42E+1	6.70E+1	3.46E-1	3.42E+0	2.12E-2	-2.50E+1	4.58E+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	3.09E-2	5.58E-5	1.78E-3	3.27E-2	3.64E-5	3.54E-3	2.36E-5	-1.23E-2	2.41E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.30E-4	1.08E-6	1.60E-5	1.47E-4	8.23E-7	5.03E-6	2.34E-8	-1.81E-5	1.35E-4
NHWD	kg	1.67E-1	1.27E-2	3.33E-3	1.83E-1	1.99E-2	1.16E-1	8.51E-2	-6.15E-2	3.42E-1
RWD	kg	1.02E-4	5.96E-6	4.24E-6	1.13E-4	2.19E-6	1.12E-5	1.26E-7	-3.41E-5	9.21E-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