

Environmental Profile

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

Ecochain v3.5.71



Product: 3038904 - Wavin UR Coupler 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

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Results

Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	1.08E+0	4.65E-2	8.75E-2	1.21E+0	1.44E-2	3.91E-1	4.51E-3	-6.00E-1	1.02E+0
GWP-f	kg CO2 eq	1.07E+0	4.65E-2	8.47E-2	1.20E+0	1.44E-2	3.91E-1	4.50E-3	-5.96E-1	1.01E+0
GWP-b	kg CO2 eq	9.50E-3	-9.94E-6	2.74E-3	1.22E-2	8.74E-6	-3.94E-4	5.67E-6	-4.21E-3	7.64E-3
GWP-luluc	kg CO2 eq	8.91E-4	3.06E-5	6.31E-5	9.84E-4	5.10E-6	1.77E-4	1.20E-7	-3.90E-4	7.76E-4
ODP	kg CFC11 eq	5.95E-7	9.46E-9	8.52E-9	6.13E-7	3.32E-9	4.85E-8	1.69E-10	-3.03E-7	3.62E-7
AP	mol H+ eq	4.96E-3	1.39E-3	4.37E-4	6.78E-3	8.20E-5	8.15E-4	4.12E-6	-2.28E-3	5.41E-3
EP-fw	kg P eq	4.88E-5	2.09E-7	1.15E-6	5.01E-5	1.18E-7	5.92E-6	5.40E-9	-2.23E-5	3.39E-5
EP-m	kg N eq	8.35E-4	3.44E-4	9.34E-5	1.27E-3	2.93E-5	1.96E-4	2.53E-6	-3.93E-4	1.11E-3
EP-T	mol N eq	9.10E-3	3.83E-3	1.00E-3	1.39E-2	3.23E-4	2.16E-3	1.64E-5	-4.18E-3	1.23E-2
POCP	kg NMVOC eq	3.08E-3	9.94E-4	4.69E-4	4.54E-3	9.25E-5	6.48E-4	5.64E-6	-1.45E-3	3.84E-3
ADP-mm	kg Sb eq	6.30E-4	4.29E-7	1.81E-6	6.32E-4	3.72E-7	3.22E-6	4.14E-9	-1.23E-5	6.24E-4
ADP-f	MJ	2.72E+1	6.05E-1	9.35E-1	2.87E+1	2.21E-1	2.23E+0	1.24E-2	-1.45E+1	1.67E+1
WDP	m3 depriv.	1.80E+0	9.96E-4	3.01E-2	1.83E+0	6.78E-4	8.92E-2	8.51E-5	-8.70E-1	1.05E+0
PM	disease inc.	3.21E-8	1.70E-9	2.92E-9	3.67E-8	1.30E-9	1.01E-8	8.51E-11	-1.44E-8	3.37E-8
IR	kBq U-235 eq	5.91E-2	2.60E-3	2.53E-3	6.43E-2	9.66E-4	7.84E-3	5.67E-5	-2.80E-2	4.51E-2
ETP-fw	CTUe	2.32E+1	4.02E-1	2.24E+0	2.58E+1	1.79E-1	1.74E+1	1.93E-1	-8.37E+0	3.52E+1
HTP-c	CTUh	8.33E-10	2.58E-11	8.78E-11	9.46E-10	6.39E-12	2.49E-10	3.43E-13	-3.19E-10	8.84E-10
HTP-nc	CTUh	2.68E-8	3.43E-10	5.80E-9	3.29E-8	2.14E-10	6.02E-9	3.71E-11	-1.10E-8	2.81E-8
SQP	Pt	3.49E+0	1.32E-1	2.98E-1	3.93E+0	1.89E-1	1.37E+0	3.16E-2	-1.55E+0	3.97E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.34E+0	4.61E-3	4.38E+0	5.72E+0	3.17E-3	1.63E-1	4.56E-4	-6.31E-1	5.26E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.34E+0	4.61E-3	4.38E+0	5.72E+0	3.17E-3	1.63E-1	4.56E-4	-6.31E-1	5.26E+0
PENRE	MJ	2.92E+1	6.43E-1	9.93E-1	3.08E+1	2.35E-1	2.37E+0	1.31E-2	-1.57E+1	1.78E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	2.92E+1	6.43E-1	9.93E-1	3.08E+1	2.35E-1	2.37E+0	1.31E-2	-1.57E+1	1.78E+1
PET	MJ	3.05E+1	6.47E-1	5.37E+0	3.65E+1	2.38E-1	2.54E+0	1.36E-2	-1.63E+1	2.30E+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	1.96E-2	3.58E-5	8.48E-4	2.05E-2	2.50E-5	2.43E-3	1.51E-5	-9.07E-3	1.39E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	9.77E-5	6.67E-7	1.06E-5	1.09E-4	5.65E-7	3.60E-6	1.51E-8	-1.20E-5	1.01E-4
NHWD	kg	1.05E-1	5.56E-3	2.13E-3	1.13E-1	1.37E-2	8.06E-2	5.48E-2	-4.63E-2	2.15E-1
RWD	kg	5.14E-5	4.20E-6	2.80E-6	5.84E-5	1.50E-6	8.34E-6	8.04E-8	-2.47E-5	4.36E-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