

Environmental Profile

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

Ecochain v3.5.71



Product: 3039701 - WavinUR Pipe BN BSEN13476 225 SN8 L=6 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	5.72E+1	2.69E+0	3.48E+0	6.34E+1	8.47E-1	2.51E+1	2.51E-1	-3.33E+1	5.64E+1
GWP-f	kg CO2 eq	5.96E+1	2.69E+0	3.31E+0	6.56E+1	8.46E-1	2.22E+1	2.51E-1	-3.30E+1	5.58E+1
GWP-b	kg CO2 eq	-2.40E+0	-4.66E-4	1.66E-1	-2.23E+0	5.14E-4	2.97E+0	3.16E-4	-2.33E-1	5.06E-1
GWP-luluc	kg CO2 eq	5.69E-2	1.73E-3	1.57E-3	6.02E-2	3.00E-4	1.01E-2	6.85E-6	-2.21E-2	4.86E-2
ODP	kg CFC11 eq	3.28E-5	5.51E-7	4.25E-7	3.38E-5	1.95E-7	2.71E-6	9.77E-9	-1.68E-5	1.99E-5
AP	mol H+ eq	2.90E-1	7.72E-2	1.50E-2	3.82E-1	4.82E-3	4.67E-2	2.36E-4	-1.28E-1	3.06E-1
EP-fw	kg P eq	2.89E-3	1.26E-5	4.18E-5	2.95E-3	6.96E-6	3.35E-4	3.06E-7	-1.24E-3	2.05E-3
EP-m	kg N eq	5.00E-2	1.92E-2	3.96E-3	7.32E-2	1.73E-3	1.14E-2	1.43E-4	-2.22E-2	6.43E-2
EP-T	mol N eq	5.52E-1	2.13E-1	4.08E-2	8.06E-1	1.90E-2	1.25E-1	9.42E-4	-2.38E-1	7.13E-1
POCP	kg NMVOC eq	1.78E-1	5.55E-2	2.21E-2	2.56E-1	5.43E-3	3.76E-2	3.22E-4	-8.16E-2	2.17E-1
ADP-mm	kg Sb eq	8.19E-2	2.70E-5	4.40E-5	8.19E-2	2.19E-5	1.84E-4	2.37E-7	-6.84E-4	8.15E-2
ADP-f	MJ	1.49E+3	3.53E+1	3.64E+1	1.56E+3	1.30E+1	1.28E+2	7.11E-1	-8.05E+2	9.00E+2
WDP	m3 depriv.	1.00E+2	6.10E-2	1.35E+0	1.02E+2	3.99E-2	5.01E+0	4.94E-3	-4.82E+1	5.88E+1
PM	disease inc.	1.94E-6	1.05E-7	9.30E-8	2.14E-6	7.64E-8	5.85E-7	4.88E-9	-8.23E-7	1.98E-6
IR	kBq U-235 eq	3.46E+0	1.52E-1	1.21E-1	3.74E+0	5.68E-2	4.49E-1	3.25E-3	-1.56E+0	2.69E+0
ETP-fw	CTUe	1.72E+3	2.37E+1	6.58E+1	1.81E+3	1.06E+1	9.63E+2	1.06E+1	-4.78E+2	2.31E+3
HTP-c	CTUh	5.51E-8	1.48E-9	2.60E-9	5.92E-8	3.75E-10	1.46E-8	1.94E-11	-1.78E-8	5.64E-8
HTP-nc	CTUh	1.78E-6	2.08E-8	2.83E-7	2.09E-6	1.26E-8	3.40E-7	2.05E-9	-6.16E-7	1.83E-6
SQP	Pt	4.79E+2	9.00E+0	9.48E+0	4.98E+2	1.11E+1	8.01E+1	1.81E+0	-1.44E+2	4.47E+2
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.18E+2	2.83E-1	9.89E+1	2.17E+2	1.86E-1	9.21E+0	2.55E-2	-4.67E+1	1.80E+2
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.18E+2	2.83E-1	9.89E+1	2.17E+2	1.86E-1	9.21E+0	2.55E-2	-4.67E+1	1.80E+2
PENRE	MJ	1.60E+3	3.75E+1	3.86E+1	1.67E+3	1.38E+1	1.37E+2	7.54E-1	-8.67E+2	9.59E+2
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.60E+3	3.75E+1	3.86E+1	1.67E+3	1.38E+1	1.37E+2	7.54E-1	-8.67E+2	9.59E+2
PET	MJ	1.72E+3	3.78E+1	1.37E+2	1.89E+3	1.40E+1	1.46E+2	7.80E-1	-9.13E+2	1.14E+3
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	1.13E+0	2.20E-3	3.52E-2	1.16E+0	1.47E-3	1.37E-1	8.67E-4	-5.03E-1	8.00E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.14E-2	4.19E-5	6.24E-4	1.21E-2	3.32E-5	2.07E-4	8.66E-7	-6.68E-4	1.16E-2
NHWD	kg	6.19E+0	4.32E-1	1.22E-1	6.74E+0	8.05E-1	4.75E+0	3.22E+0	-2.59E+0	1.29E+1
RWD	kg	2.98E-3	2.45E-4	1.65E-4	3.39E-3	8.84E-5	4.81E-4	4.63E-6	-1.37E-3	2.59E-3
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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