

# Environmental Profile

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

Ecochain v3.5.71



Product: 3038906 - Wavin UR Pipe BN BSEN13476 150 SN8 L=3 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	1.19E+1	5.94E-1	7.57E-1	1.32E+1	1.84E-1	6.15E+0	5.46E-2	-7.25E+0	1.24E+1
GWP-f	kg CO2 eq	1.31E+1	5.94E-1	7.21E-1	1.44E+1	1.84E-1	4.83E+0	5.45E-2	-7.20E+0	1.23E+1
GWP-b	kg CO2 eq	-1.20E+0	-9.61E-5	3.61E-2	-1.17E+0	1.12E-4	1.33E+0	6.87E-5	-5.08E-2	1.10E-1
GWP-luluc	kg CO2 eq	1.28E-2	3.79E-4	3.42E-4	1.35E-2	6.52E-5	2.19E-3	1.49E-6	-4.90E-3	1.09E-2
ODP	kg CFC11 eq	7.16E-6	1.22E-7	9.25E-8	7.37E-6	4.25E-8	5.91E-7	2.13E-9	-3.66E-6	4.35E-6
AP	mol H+ eq	6.39E-2	1.68E-2	3.25E-3	8.40E-2	1.05E-3	1.02E-2	5.14E-5	-2.81E-2	6.73E-2
EP-fw	kg P eq	6.36E-4	2.81E-6	9.10E-6	6.48E-4	1.52E-6	7.30E-5	6.67E-8	-2.70E-4	4.52E-4
EP-m	kg N eq	1.11E-2	4.20E-3	8.62E-4	1.62E-2	3.76E-4	2.50E-3	3.10E-5	-4.92E-3	1.42E-2
EP-T	mol N eq	1.23E-1	4.67E-2	8.88E-3	1.79E-1	4.14E-3	2.76E-2	2.05E-4	-5.32E-2	1.57E-1
POCP	kg NMVOC eq	3.95E-2	1.21E-2	4.81E-3	5.65E-2	1.18E-3	8.27E-3	7.01E-5	-1.80E-2	4.80E-2
ADP-mm	kg Sb eq	1.78E-2	6.11E-6	9.56E-6	1.79E-2	4.77E-6	4.02E-5	5.15E-8	-1.49E-4	1.78E-2
ADP-f	MJ	3.26E+2	7.83E+0	7.91E+0	3.42E+2	2.83E+0	2.80E+1	1.55E-1	-1.75E+2	1.98E+2
WDP	m3 depriv.	2.19E+1	1.37E-2	2.94E-1	2.22E+1	8.68E-3	1.09E+0	1.08E-3	-1.05E+1	1.28E+1
PM	disease inc.	4.58E-7	2.37E-8	2.02E-8	5.02E-7	1.66E-8	1.28E-7	1.06E-9	-1.85E-7	4.63E-7
IR	kBq U-235 eq	7.62E-1	3.37E-2	2.63E-2	8.22E-1	1.24E-2	9.79E-2	7.07E-4	-3.40E-1	5.93E-1
ETP-fw	CTUe	3.77E+2	5.28E+0	1.43E+1	3.97E+2	2.30E+0	2.10E+2	2.31E+0	-1.07E+2	5.05E+2
HTP-c	CTUh	1.23E-8	3.25E-10	5.65E-10	1.32E-8	8.17E-11	3.23E-9	4.22E-12	-3.92E-9	1.26E-8
HTP-nc	CTUh	3.91E-7	4.67E-9	6.16E-8	4.57E-7	2.74E-9	7.43E-8	4.46E-10	-1.35E-7	3.99E-7
SQP	Pt	1.66E+2	2.08E+0	2.06E+0	1.70E+2	2.42E+0	1.75E+1	3.93E-1	-4.45E+1	1.46E+2
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	3.50E+1	6.35E-2	2.15E+1	5.66E+1	4.06E-2	2.01E+0	5.56E-3	-1.28E+1	4.59E+1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	3.50E+1	6.35E-2	2.15E+1	5.66E+1	4.06E-2	2.01E+0	5.56E-3	-1.28E+1	4.59E+1
PENRE	MJ	3.50E+2	8.31E+0	8.40E+0	3.66E+2	3.00E+0	2.98E+1	1.64E-1	-1.89E+2	2.11E+2
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	3.50E+2	8.31E+0	8.40E+0	3.66E+2	3.00E+0	2.98E+1	1.64E-1	-1.89E+2	2.11E+2
PET	MJ	3.85E+2	8.37E+0	2.99E+1	4.23E+2	3.04E+0	3.18E+1	1.70E-1	-2.02E+2	2.56E+2
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	2.47E-1	4.94E-4	7.66E-3	2.55E-1	3.20E-4	2.99E-2	1.89E-4	-1.10E-1	1.76E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	2.49E-3	9.47E-6	1.36E-4	2.63E-3	7.23E-6	4.52E-5	1.89E-7	-1.46E-4	2.54E-3
NHWD	kg	1.38E+0	1.02E-1	2.66E-2	1.51E+0	1.75E-1	1.05E+0	7.01E-1	-5.69E-1	2.86E+0
RWD	kg	6.57E-4	5.42E-5	3.59E-5	7.47E-4	1.92E-5	1.05E-4	1.01E-6	-3.00E-4	5.73E-4
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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