

Environmental Profile

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

Ecochain v3.5.71



Product: 4039621 - Wavin UR Socket Plug BN 300 P/E
 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	5.41E+0	2.96E-2	2.65E-1	5.70E+0	3.89E-2	1.24E+0	1.86E-2	-1.83E+0	5.17E+0
GWP-f	kg CO2 eq	5.49E+0	2.96E-2	2.56E-1	5.78E+0	3.88E-2	1.24E+0	1.86E-2	-1.83E+0	5.25E+0
GWP-b	kg CO2 eq	-8.56E-2	1.80E-5	8.28E-3	-7.73E-2	2.36E-5	-1.52E-3	1.63E-5	-6.14E-3	-8.49E-2
GWP-luluc	kg CO2 eq	3.81E-3	1.05E-5	1.91E-4	4.01E-3	1.37E-5	2.15E-4	3.13E-7	-3.47E-4	3.89E-3
ODP	kg CFC11 eq	2.76E-7	6.82E-9	2.58E-8	3.09E-7	8.95E-9	2.82E-8	4.67E-10	-7.19E-8	2.74E-7
AP	mol H+ eq	2.39E-2	1.69E-4	1.32E-3	2.54E-2	2.21E-4	1.19E-3	1.11E-5	-5.03E-3	2.18E-2
EP-fw	kg P eq	1.68E-4	2.44E-7	3.47E-6	1.72E-4	3.20E-7	6.22E-6	1.44E-8	-1.97E-5	1.59E-4
EP-m	kg N eq	4.14E-3	6.04E-5	2.82E-4	4.49E-3	7.92E-5	3.48E-4	7.77E-6	-8.94E-4	4.03E-3
EP-T	mol N eq	4.68E-2	6.65E-4	3.02E-3	5.05E-2	8.72E-4	3.83E-3	4.52E-5	-9.89E-3	4.54E-2
POCP	kg NMVOC eq	1.72E-2	1.90E-4	1.42E-3	1.88E-2	2.49E-4	1.21E-3	1.69E-5	-4.55E-3	1.57E-2
ADP-mm	kg Sb eq	1.08E-4	7.66E-7	5.47E-6	1.14E-4	1.00E-6	4.67E-6	1.12E-8	-1.35E-5	1.06E-4
ADP-f	MJ	1.43E+2	4.55E-1	2.83E+0	1.47E+2	5.96E-1	3.74E+0	3.41E-2	-5.69E+1	9.41E+1
WDP	m3 depriv.	2.05E+0	1.40E-3	9.11E-2	2.15E+0	1.83E-3	7.47E-2	1.56E-4	-9.72E-1	1.25E+0
PM	disease inc.	1.91E-7	2.67E-9	8.82E-9	2.03E-7	3.51E-9	1.94E-8	2.34E-10	-4.20E-8	1.84E-7
IR	kBq U-235 eq	1.73E-1	1.99E-3	7.65E-3	1.83E-1	2.61E-3	1.13E-2	1.58E-4	-2.66E-2	1.70E-1
ETP-fw	CTUe	7.20E+1	3.69E-1	6.76E+0	7.91E+1	4.84E-1	4.42E+0	3.00E-2	-7.05E+0	7.70E+1
HTP-c	CTUh	1.57E-9	1.31E-11	2.65E-10	1.84E-9	1.72E-11	5.00E-10	8.23E-13	-3.01E-10	2.06E-9
HTP-nc	CTUh	4.38E-8	4.40E-10	1.75E-8	6.18E-8	5.77E-10	6.33E-9	1.86E-11	-8.46E-9	6.03E-8
SQP	Pt	1.97E+1	3.89E-1	9.02E-1	2.10E+1	5.10E-1	2.98E+0	8.74E-2	-1.55E+0	2.30E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	5.25E+0	6.52E-3	1.32E+1	1.85E+1	8.55E-3	1.85E-1	1.34E-3	-7.01E-1	1.80E+1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	5.25E+0	6.52E-3	1.32E+1	1.85E+1	8.55E-3	1.85E-1	1.34E-3	-7.01E-1	1.80E+1
PENRE	MJ	1.54E+2	4.83E-1	3.00E+0	1.57E+2	6.33E-1	3.99E+0	3.61E-2	-6.13E+1	1.00E+2
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.54E+2	4.83E-1	3.00E+0	1.57E+2	6.33E-1	3.99E+0	3.61E-2	-6.13E+1	1.00E+2
PET	MJ	1.59E+2	4.89E-1	1.62E+1	1.76E+2	6.42E-1	4.17E+0	3.75E-2	-6.20E+1	1.18E+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	5.25E-2	5.14E-5	2.56E-3	5.51E-2	6.75E-5	2.32E-3	4.21E-5	-1.46E-2	4.29E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	8.81E-5	1.16E-6	3.20E-5	1.21E-4	1.52E-6	6.15E-6	4.09E-8	-1.40E-5	1.15E-4
NHWD	kg	4.05E-1	2.82E-2	6.43E-3	4.40E-1	3.70E-2	1.86E-1	1.50E-1	-4.36E-2	7.69E-1
RWD	kg	1.60E-4	3.09E-6	8.47E-6	1.72E-4	4.05E-6	1.43E-5	2.23E-7	-2.42E-5	1.66E-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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