

Environmental Profile

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

Ecochain v3.5.80



Product: 3044085 - Tegra 1000 PE WS Empty Base
Unit: 1 piece
Manufacturer: Wavin - PL -Buk - Extra products

Wavin Tegra manholes are easy to install, easy to access, versatile and durable, making them the ideal choice for public sewer systems. We offer a wide range of well configurations, corrugated riser pipes with diameters from 425 to 1,000 mm and top terminations.

LCA standard: EN15804+A2 (2019)
Standard database: Worldwide - Ecoinvent v 3.6 Cut-Off
Externally verified: Yes
Issue date: 08-06-2023
End of validity: 08-06-2028
Verifier: Martijn van Hövell - SGS Search



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 - PL -Buk - Extra products (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					Use stage							End-of-Life stage				
A1 Raw material supply A2 Transport A3 Manufacturing					B1 Use B2 Maintenance B3 Repair B4 Replacement B5 Refurbishment B6 Operational energy use B7 Operational water use							C1 De-construction demolition C2 Transport C3 Waste processing C4 Disposal				
Construction process stage												Benefits and loads beyond the system boundaries				
A4 Transport gate to site A5 Assembly / Construction installation process												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]

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Results

Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	2.36E+2	7.94E-1	2.28E-2	2.37E+2	2.02E+0	1.15E+2	9.55E-1	-1.01E+2	2.53E+2
GWP-f	kg CO2 eq	2.94E+2	7.93E-1	2.30E-2	2.95E+2	2.02E+0	5.91E+1	9.55E-1	-1.01E+2	2.56E+2
GWP-b	kg CO2 eq	-5.89E+1	4.82E-4	-2.43E-4	-5.89E+1	1.23E-3	5.55E+1	8.32E-4	-3.31E-1	-3.76E+0
GWP-luluc	kg CO2 eq	2.15E-1	2.81E-4	2.35E-5	2.15E-1	7.15E-4	1.15E-2	1.60E-5	-4.47E-2	1.83E-1
ODP	kg CFC11 eq	1.53E-5	1.83E-7	1.30E-9	1.55E-5	4.66E-7	1.54E-6	2.39E-8	-4.35E-6	1.31E-5
AP	mol H+ eq	1.24E+0	4.52E-3	2.32E-4	1.24E+0	1.15E-2	6.43E-2	5.69E-4	-3.13E-1	1.01E+0
EP-fw	kg P eq	8.67E-3	6.53E-6	1.30E-6	8.68E-3	1.66E-5	3.32E-4	7.36E-7	-1.39E-3	7.64E-3
EP-m	kg N eq	2.23E-1	1.62E-3	2.44E-5	2.25E-1	4.12E-3	1.89E-2	3.73E-4	-6.00E-2	1.88E-1
EP-T	mol N eq	2.52E+0	1.78E-2	2.92E-4	2.54E+0	4.54E-2	2.08E-1	2.31E-3	-6.73E-1	2.12E+0
POCP	kg NMVOC eq	9.41E-1	5.09E-3	9.88E-5	9.46E-1	1.30E-2	6.55E-2	8.68E-4	-2.96E-1	7.30E-1
ADP-mm	kg Sb eq	3.15E-3	2.05E-5	3.10E-6	3.17E-3	5.23E-5	2.52E-4	5.71E-7	-7.48E-4	2.73E-3
ADP-f	MJ	7.56E+3	1.22E+1	2.14E-1	7.57E+3	3.10E+1	2.01E+2	1.74E+0	-3.09E+3	4.72E+3
WDP	m3 depriv.	1.14E+2	3.74E-2	8.21E-3	1.14E+2	9.52E-2	3.89E+0	7.98E-3	-5.36E+1	6.43E+1
PM	disease inc.	1.05E-5	7.16E-8	1.43E-9	1.06E-5	1.82E-7	1.05E-6	1.20E-8	-3.20E-6	8.61E-6
IR	kBq U-235 eq	8.94E+0	5.32E-2	1.60E-4	8.99E+0	1.36E-1	6.14E-1	8.10E-3	-1.75E+0	8.01E+0
ETP-fw	CTUe	3.66E+3	9.89E+0	1.90E+0	3.67E+3	2.52E+1	2.26E+2	1.46E+0	-5.81E+2	3.34E+3
HTP-c	CTUh	1.04E-7	3.52E-10	9.71E-11	1.05E-7	8.97E-10	2.72E-8	4.20E-11	-3.56E-8	9.73E-8
HTP-nc	CTUh	2.36E-6	1.18E-8	2.46E-9	2.37E-6	3.00E-8	3.36E-7	9.36E-10	-6.07E-7	2.13E-6
SQP	Pt	5.59E+3	1.04E+1	3.53E-1	5.61E+3	2.65E+1	1.61E+2	4.48E+0	-3.98E+3	1.82E+3
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	9.35E+2	1.75E-1	3.78E+0	9.39E+2	4.45E-1	9.85E+0	6.80E-2	-6.20E+2	3.29E+2
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	9.35E+2	1.75E-1	3.78E+0	9.39E+2	4.45E-1	9.85E+0	6.80E-2	-6.20E+2	3.29E+2
PENRE	MJ	8.11E+3	1.29E+1	2.27E-1	8.12E+3	3.29E+1	2.14E+2	1.85E+0	-3.32E+3	5.05E+3
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	8.11E+3	1.29E+1	2.27E-1	8.12E+3	3.29E+1	2.14E+2	1.85E+0	-3.32E+3	5.05E+3
PET	MJ	9.04E+3	1.31E+1	4.01E+0	9.06E+3	3.34E+1	2.24E+2	1.92E+0	-3.94E+3	5.37E+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	2.73E+0	1.38E-3	2.30E-4	2.73E+0	3.51E-3	1.16E-1	2.15E-3	-8.34E-1	2.02E+0

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	4.88E-3	3.11E-5	4.30E-11	4.91E-3	7.94E-5	3.30E-4	2.09E-6	-9.86E-4	4.34E-3
NHWD	kg	2.35E+1	7.55E-1	1.66E-4	2.43E+1	1.92E+0	9.90E+0	7.69E+0	-4.44E+0	3.93E+1
RWD	kg	8.23E-3	8.28E-5	1.73E-11	8.31E-3	2.11E-4	7.81E-4	1.14E-5	-1.67E-3	7.65E-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



Ecochain Technologies BV
H.J.E. Wenckebachweg 123, 1096 AM Amsterdam, The Netherlands
<https://www.ecochain.com>
+31 20 3035 777