

Environmental Profile

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

Ecochain v3.5.80



Product: 3076518 - Tegra 800 GRP Ladder YL 14 rungs
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]

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	6.57E+1	6.00E-2	1.62E-1	6.59E+1	3.01E-2	3.19E+1	1.38E-2	-1.78E+1	8.01E+1
GWP-f	kg CO2 eq	7.16E+1	6.00E-2	1.64E-1	7.18E+1	3.01E-2	2.53E+1	1.38E-2	-1.77E+1	7.94E+1
GWP-b	kg CO2 eq	-5.93E+0	3.64E-5	-1.73E-3	-5.93E+0	1.83E-5	6.66E+0	1.26E-5	-3.44E-2	7.01E-1
GWP-luluc	kg CO2 eq	4.43E-2	2.12E-5	1.67E-4	4.45E-2	1.07E-5	8.56E-4	2.44E-7	-5.30E-3	4.00E-2
ODP	kg CFC11 eq	1.02E-5	1.38E-8	9.26E-9	1.03E-5	6.94E-9	2.96E-7	3.56E-10	-2.06E-6	8.51E-6
AP	mol H+ eq	4.24E-1	3.42E-4	1.65E-3	4.26E-1	1.72E-4	2.24E-2	8.60E-6	-3.29E-2	4.15E-1
EP-fw	kg P eq	4.25E-3	4.93E-7	9.23E-6	4.26E-3	2.48E-7	2.99E-5	1.12E-8	-2.20E-4	4.07E-3
EP-m	kg N eq	1.07E-1	1.22E-4	1.74E-4	1.07E-1	6.14E-5	1.25E-2	9.27E-6	-8.88E-3	1.11E-1
EP-T	mol N eq	8.09E-1	1.35E-3	2.08E-3	8.13E-1	6.76E-4	1.11E-1	3.47E-5	-8.63E-2	8.38E-1
POCP	kg NMVOC eq	3.16E-1	3.85E-4	7.03E-4	3.17E-1	1.93E-4	2.61E-2	1.29E-5	-3.13E-2	3.12E-1
ADP-mm	kg Sb eq	1.61E-3	1.55E-6	2.20E-5	1.64E-3	7.79E-7	1.93E-5	8.56E-9	-6.97E-5	1.59E-3
ADP-f	MJ	1.40E+3	9.20E-1	1.52E+0	1.40E+3	4.62E-1	1.53E+1	2.61E-2	-3.19E+2	1.10E+3
WDP	m3 depriv.	5.55E+1	2.82E-3	5.85E-2	5.56E+1	1.42E-3	5.09E-1	1.20E-4	-3.61E+0	5.25E+1
PM	disease inc.	4.70E-6	5.41E-9	1.02E-8	4.71E-6	2.72E-9	1.21E-7	1.79E-10	-3.29E-7	4.51E-6
IR	kBq U-235 eq	2.94E+0	4.02E-3	1.14E-3	2.94E+0	2.02E-3	5.19E-2	1.23E-4	-2.26E-1	2.77E+0
ETP-fw	CTUe	4.91E+3	7.47E-1	1.35E+1	4.92E+3	3.75E-1	8.99E+1	3.29E-2	-2.14E+2	4.80E+3
HTP-c	CTUh	7.49E-7	2.66E-11	6.91E-10	7.49E-7	1.34E-11	5.40E-9	6.49E-13	-2.86E-8	7.26E-7
HTP-nc	CTUh	7.29E-6	8.91E-10	1.75E-8	7.31E-6	4.47E-10	6.05E-8	1.67E-11	-2.85E-7	7.09E-6
SQP	Pt	7.44E+2	7.87E-1	2.51E+0	7.48E+2	3.95E-1	8.82E+0	6.67E-2	-4.81E+2	2.76E+2
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.57E+2	1.32E-2	2.69E+1	1.84E+2	6.63E-3	8.37E-1	1.08E-3	-7.37E+1	1.11E+2
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.57E+2	1.32E-2	2.69E+1	1.84E+2	6.63E-3	8.37E-1	1.08E-3	-7.37E+1	1.11E+2
PENRE	MJ	1.50E+3	9.77E-1	1.62E+0	1.50E+3	4.91E-1	1.63E+1	2.77E-2	-3.50E+2	1.17E+3
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.50E+3	9.77E-1	1.62E+0	1.50E+3	4.91E-1	1.63E+1	2.77E-2	-3.50E+2	1.17E+3
PET	MJ	1.65E+3	9.90E-1	2.85E+1	1.68E+3	4.97E-1	1.72E+1	2.87E-2	-4.24E+2	1.28E+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	1.44E+0	1.04E-4	1.64E-3	1.44E+0	5.23E-5	1.82E-2	3.23E-5	-8.02E-2	1.38E+0

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	8.75E-4	2.35E-6	3.06E-10	8.78E-4	1.18E-6	3.62E-5	3.12E-8	-3.45E-4	5.69E-4
NHWD	kg	6.07E+0	5.70E-2	1.18E-3	6.13E+0	2.86E-2	1.75E+0	1.15E-1	-5.75E-1	7.44E+0
RWD	kg	2.86E-3	6.26E-6	1.23E-10	2.87E-3	3.14E-6	6.15E-5	1.71E-7	-2.51E-4	2.69E-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