

Environmental Profile

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

Ecochain v3.5.80



Product: 4000647 - InSitu Connector 200 Tegra 600
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

This document and supporting material contain confidential and proprietary business information of Wavin - PL -Buk - Extra products. These materials may be printed or (photo) copied or otherwise used only with the written consent of Wavin - PL -Buk - Extra products.

Results

Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	8.62E+0	6.22E-2	4.07E-2	8.73E+0	7.25E-2	3.51E+0	2.56E-2	-3.39E+0	8.95E+0
GWP-f	kg CO2 eq	9.02E+0	6.22E-2	4.11E-2	9.12E+0	7.24E-2	3.13E+0	2.56E-2	-3.46E+0	8.89E+0
GWP-b	kg CO2 eq	-4.15E-1	3.77E-5	-4.34E-4	-4.16E-1	4.40E-5	3.86E-1	3.13E-5	6.78E-2	3.87E-2
GWP-luluc	kg CO2 eq	2.05E-2	2.20E-5	4.20E-5	2.06E-2	2.56E-5	8.53E-4	6.35E-7	-2.64E-3	1.88E-2
ODP	kg CFC11 eq	3.31E-6	1.43E-8	2.32E-9	3.32E-6	1.67E-8	2.36E-7	9.16E-10	-1.49E-6	2.08E-6
AP	mol H+ eq	4.37E-2	3.54E-4	4.15E-4	4.45E-2	4.12E-4	4.12E-3	2.23E-5	-1.20E-2	3.71E-2
EP-fw	kg P eq	3.74E-4	5.12E-7	2.32E-6	3.77E-4	5.96E-7	2.86E-5	2.89E-8	-1.16E-4	2.90E-4
EP-m	kg N eq	7.65E-3	1.27E-4	4.36E-5	7.82E-3	1.48E-4	1.03E-3	1.79E-5	-2.17E-3	6.84E-3
EP-T	mol N eq	8.35E-2	1.40E-3	5.22E-4	8.54E-2	1.63E-3	1.13E-2	8.89E-5	-2.34E-2	7.51E-2
POCP	kg NMVOC eq	2.86E-2	3.99E-4	1.77E-4	2.91E-2	4.65E-4	3.35E-3	3.08E-5	-8.03E-3	2.50E-2
ADP-mm	kg Sb eq	2.86E-3	1.61E-6	5.53E-6	2.86E-3	1.87E-6	1.57E-5	2.22E-8	-7.35E-5	2.81E-3
ADP-f	MJ	2.00E+2	9.54E-1	3.82E-1	2.01E+2	1.11E+0	1.09E+1	6.69E-2	-7.98E+1	1.33E+2
WDP	m3 depriv.	7.94E+0	2.93E-3	1.47E-2	7.95E+0	3.41E-3	4.40E-1	3.81E-4	-4.26E+0	4.14E+0
PM	disease inc.	3.60E-7	5.61E-9	2.56E-9	3.69E-7	6.54E-9	4.96E-8	4.60E-10	-8.52E-8	3.40E-7
IR	kBq U-235 eq	4.55E-1	4.17E-3	2.86E-4	4.59E-1	4.86E-3	3.82E-2	3.10E-4	-1.45E-1	3.58E-1
ETP-fw	CTUe	2.00E+2	7.75E-1	3.40E+0	2.04E+2	9.03E-1	8.53E+1	9.43E-1	-4.87E+1	2.42E+2
HTP-c	CTUh	5.50E-9	2.76E-11	1.74E-10	5.71E-9	3.21E-11	1.20E-9	1.81E-12	-1.70E-9	5.24E-9
HTP-nc	CTUh	1.60E-7	9.24E-10	4.40E-9	1.66E-7	1.08E-9	2.97E-8	1.85E-10	-5.54E-8	1.41E-7
SQP	Pt	7.10E+1	8.16E-1	6.30E-1	7.24E+1	9.51E-1	6.63E+0	1.71E-1	-4.48E+1	3.54E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	2.25E+1	1.37E-2	6.76E+0	2.93E+1	1.59E-2	7.86E-1	2.59E-3	-9.15E+0	2.10E+1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	2.25E+1	1.37E-2	6.76E+0	2.93E+1	1.59E-2	7.86E-1	2.59E-3	-9.15E+0	2.10E+1
PENRE	MJ	2.14E+2	1.01E+0	4.06E-1	2.15E+2	1.18E+0	1.16E+1	7.10E-2	-8.62E+1	1.42E+2
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	2.14E+2	1.01E+0	4.06E-1	2.15E+2	1.18E+0	1.16E+1	7.10E-2	-8.62E+1	1.42E+2
PET	MJ	2.36E+2	1.03E+0	7.17E+0	2.45E+2	1.20E+0	1.23E+1	7.36E-2	-9.54E+1	1.63E+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	1.33E-1	1.08E-4	4.11E-4	1.33E-1	1.26E-4	1.31E-2	8.23E-5	-4.74E-2	9.93E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	4.67E-4	2.44E-6	7.68E-11	4.70E-4	2.84E-6	1.83E-5	8.09E-8	-7.05E-5	4.20E-4
NHWD	kg	9.09E-1	5.91E-2	2.97E-4	9.69E-1	6.89E-2	4.21E-1	2.95E-1	-2.41E-1	1.51E+0
RWD	kg	4.46E-4	6.49E-6	3.08E-11	4.53E-4	7.56E-6	4.09E-5	4.37E-7	-1.31E-4	3.70E-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



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