

Environmental Profile

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

Ecochain v3.5.80



Product: 3011336 - Tegra 425 PP Straight DN315 SW
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	2.49E+1	1.12E+0	2.57E-2	2.61E+1	4.96E-1	4.02E+1	2.40E-1	-2.68E+1	4.02E+1
GWP-f	kg CO2 eq	4.69E+1	1.12E+0	2.59E-2	4.80E+1	4.96E-1	1.80E+1	2.40E-1	-2.67E+1	4.00E+1
GWP-b	kg CO2 eq	-2.20E+1	6.78E-4	-2.74E-4	-2.20E+1	3.01E-4	2.22E+1	2.11E-4	-7.74E-2	1.53E-1
GWP-luluc	kg CO2 eq	4.02E-2	3.95E-4	2.65E-5	4.06E-2	1.76E-4	2.78E-3	4.15E-6	-1.51E-2	2.85E-2
ODP	kg CFC11 eq	2.59E-6	2.57E-7	1.47E-9	2.85E-6	1.14E-7	3.84E-7	6.06E-9	-1.52E-6	1.84E-6
AP	mol H+ eq	1.88E-1	6.36E-3	2.62E-4	1.94E-1	2.82E-3	1.63E-2	1.45E-4	-8.40E-2	1.30E-1
EP-fw	kg P eq	8.84E-4	9.19E-6	1.46E-6	8.95E-4	4.08E-6	8.06E-5	1.90E-7	-3.98E-4	5.82E-4
EP-m	kg N eq	3.32E-2	2.28E-3	2.75E-5	3.55E-2	1.01E-3	4.86E-3	1.06E-4	-1.69E-2	2.46E-2
EP-T	mol N eq	3.74E-1	2.51E-2	3.29E-4	3.99E-1	1.11E-2	5.36E-2	5.88E-4	-1.90E-1	2.74E-1
POCP	kg NMVOC eq	1.64E-1	7.17E-3	1.11E-4	1.72E-1	3.18E-3	1.66E-2	2.20E-4	-8.08E-2	1.11E-1
ADP-mm	kg Sb eq	2.04E-3	2.89E-5	3.49E-6	2.07E-3	1.28E-5	6.18E-5	1.46E-7	-2.48E-4	1.90E-3
ADP-f	MJ	1.52E+3	1.71E+1	2.41E-1	1.54E+3	7.61E+0	4.92E+1	4.43E-1	-7.78E+2	8.15E+2
WDP	m3 depriv.	3.10E+1	5.26E-2	9.26E-3	3.10E+1	2.34E-2	9.71E-1	2.31E-3	-1.34E+1	1.87E+1
PM	disease inc.	2.02E-6	1.01E-7	1.61E-9	2.12E-6	4.48E-8	2.58E-7	3.04E-9	-9.30E-7	1.50E-6
IR	kBq U-235 eq	1.29E+0	7.49E-2	1.81E-4	1.36E+0	3.33E-2	1.51E-1	2.06E-3	-4.97E-1	1.05E+0
ETP-fw	CTUe	4.46E+2	1.39E+1	2.14E+0	4.62E+2	6.18E+0	6.02E+1	4.08E-1	-1.80E+2	3.49E+2
HTP-c	CTUh	2.44E-8	4.95E-10	1.09E-10	2.50E-8	2.20E-10	6.87E-9	1.09E-11	-1.20E-8	2.01E-8
HTP-nc	CTUh	4.52E-7	1.66E-8	2.78E-9	4.71E-7	7.37E-9	8.42E-8	2.48E-10	-1.78E-7	3.85E-7
SQP	Pt	1.94E+3	1.47E+1	3.97E-1	1.96E+3	6.51E+0	3.91E+1	1.14E+0	-1.58E+3	4.24E+2
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	4.29E+2	2.46E-1	4.26E+0	4.33E+2	1.09E-1	2.39E+0	1.73E-2	-2.43E+2	1.93E+2
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	4.29E+2	2.46E-1	4.26E+0	4.33E+2	1.09E-1	2.39E+0	1.73E-2	-2.43E+2	1.93E+2
PENRE	MJ	1.63E+3	1.82E+1	2.56E-1	1.65E+3	8.08E+0	5.24E+1	4.70E-1	-8.38E+2	8.69E+2
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.63E+3	1.82E+1	2.56E-1	1.65E+3	8.08E+0	5.24E+1	4.70E-1	-8.38E+2	8.69E+2
PET	MJ	2.06E+3	1.84E+1	4.52E+0	2.08E+3	8.19E+0	5.48E+1	4.87E-1	-1.08E+3	1.06E+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	5.27E-1	1.94E-3	2.59E-4	5.29E-1	8.61E-4	3.24E-2	5.46E-4	-2.12E-1	3.50E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	4.08E-4	4.38E-5	4.85E-11	4.52E-4	1.95E-5	8.35E-5	5.34E-7	-3.20E-4	2.35E-4
NHWD	kg	3.02E+0	1.06E+0	1.87E-4	4.08E+0	4.72E-1	2.51E+0	1.95E+0	-1.44E+0	7.57E+0
RWD	kg	1.41E-3	1.17E-4	1.94E-11	1.53E-3	5.18E-5	1.93E-4	2.89E-6	-4.95E-4	1.28E-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