

Environmental Profile

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

Ecochain v3.5.80



Product: 3044042 - Basic 425 PP DN315-I-P/E
Unit: 1 piece
Manufacturer: Wavin - PL -Buk - Extra products

Ensuring a long service life and high efficiency of the sewage network requires fitting with wells ensuring its ventilation, cleaning and inspection. Wavin offers a wide range of manholes and manholes (inspection chambers) of different diameters, different levels of technical sophistication, and thus for different areas of application.

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	7.37E+0	5.02E-1	7.25E-3	7.88E+0	3.01E-1	3.27E+1	1.45E-1	-1.72E+1	2.38E+1
GWP-f	kg CO2 eq	2.94E+1	5.02E-1	7.32E-3	2.99E+1	3.01E-1	1.05E+1	1.45E-1	-1.71E+1	2.37E+1
GWP-b	kg CO2 eq	-2.21E+1	3.05E-4	-7.72E-5	-2.21E+1	1.83E-4	2.22E+1	1.27E-4	-4.71E-2	1.06E-1
GWP-luluc	kg CO2 eq	1.97E-2	1.78E-4	7.48E-6	1.99E-2	1.06E-4	1.71E-3	2.50E-6	-1.33E-2	8.40E-3
ODP	kg CFC11 eq	1.57E-6	1.16E-7	4.14E-10	1.69E-6	6.93E-8	2.42E-7	3.66E-9	-1.02E-6	9.82E-7
AP	mol H+ eq	1.19E-1	2.86E-3	7.38E-5	1.22E-1	1.71E-3	1.02E-2	8.74E-5	-5.85E-2	7.55E-2
EP-fw	kg P eq	5.83E-4	4.13E-6	4.12E-7	5.87E-4	2.47E-6	4.97E-5	1.14E-7	-2.96E-4	3.44E-4
EP-m	kg N eq	2.18E-2	1.02E-3	7.76E-6	2.29E-2	6.13E-4	3.07E-3	6.32E-5	-1.23E-2	1.43E-2
EP-T	mol N eq	2.46E-1	1.13E-2	9.28E-5	2.58E-1	6.75E-3	3.38E-2	3.55E-4	-1.40E-1	1.59E-1
POCP	kg NMVOC eq	1.07E-1	3.22E-3	3.14E-5	1.11E-1	1.93E-3	1.05E-2	1.33E-4	-5.79E-2	6.54E-2
ADP-mm	kg Sb eq	1.13E-3	1.30E-5	9.85E-7	1.15E-3	7.78E-6	3.86E-5	8.81E-8	-1.66E-4	1.03E-3
ADP-f	MJ	9.34E+2	7.71E+0	6.79E-2	9.42E+2	4.62E+0	3.06E+1	2.67E-1	-4.89E+2	4.88E+2
WDP	m3 depriv.	1.79E+1	2.36E-2	2.61E-3	1.80E+1	1.42E-2	5.91E-1	1.37E-3	-8.41E+0	1.02E+1
PM	disease inc.	1.36E-6	4.53E-8	4.55E-10	1.40E-6	2.71E-8	1.61E-7	1.84E-9	-7.21E-7	8.71E-7
IR	kBq U-235 eq	7.96E-1	3.37E-2	5.09E-5	8.29E-1	2.02E-2	9.51E-2	1.24E-3	-3.55E-1	5.90E-1
ETP-fw	CTUe	2.91E+2	6.26E+0	6.05E-1	2.98E+2	3.75E+0	3.67E+1	2.43E-1	-1.42E+2	1.97E+2
HTP-c	CTUh	1.85E-8	2.23E-10	3.09E-11	1.88E-8	1.33E-10	4.27E-9	6.58E-12	-1.04E-8	1.28E-8
HTP-nc	CTUh	2.97E-7	7.46E-9	7.83E-10	3.05E-7	4.47E-9	5.18E-8	1.49E-10	-1.33E-7	2.28E-7
SQP	Pt	1.91E+3	6.59E+0	1.12E-1	1.91E+3	3.95E+0	2.43E+1	6.85E-1	-1.57E+3	3.69E+2
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	3.64E+2	1.11E-1	1.20E+0	3.65E+2	6.62E-2	1.48E+0	1.04E-2	-2.39E+2	1.27E+2
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	3.64E+2	1.11E-1	1.20E+0	3.65E+2	6.62E-2	1.48E+0	1.04E-2	-2.39E+2	1.27E+2
PENRE	MJ	1.00E+3	8.18E+0	7.23E-2	1.01E+3	4.90E+0	3.26E+1	2.83E-1	-5.27E+2	5.21E+2
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.00E+3	8.18E+0	7.23E-2	1.01E+3	4.90E+0	3.26E+1	2.83E-1	-5.27E+2	5.21E+2
PET	MJ	1.37E+3	8.29E+0	1.28E+0	1.37E+3	4.97E+0	3.41E+1	2.94E-1	-7.66E+2	6.48E+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	3.00E-1	8.72E-4	7.30E-5	3.01E-1	5.22E-4	1.96E-2	3.29E-4	-1.38E-1	1.83E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	2.98E-4	1.97E-5	1.37E-11	3.18E-4	1.18E-5	5.21E-5	3.22E-7	-2.37E-4	1.45E-4
NHWD	kg	2.16E+0	4.78E-1	5.28E-5	2.64E+0	2.86E-1	1.55E+0	1.18E+0	-1.21E+0	4.44E+0
RWD	kg	8.61E-4	5.24E-5	5.49E-12	9.13E-4	3.14E-5	1.22E-4	1.74E-6	-3.64E-4	7.04E-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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