

Environmental Profile

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

Ecochain v3.5.80



Product: 3043116 - Basic 400 PP for corr.shaft DN250 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	3.56E+0	4.59E-1	5.44E-3	4.03E+0	2.59E-1	3.08E+1	1.24E-1	-1.51E+1	2.01E+1
GWP-f	kg CO2 eq	2.56E+1	4.58E-1	5.49E-3	2.61E+1	2.59E-1	8.60E+0	1.24E-1	-1.51E+1	2.00E+1
GWP-b	kg CO2 eq	-2.21E+1	2.78E-4	-5.80E-5	-2.21E+1	1.57E-4	2.22E+1	1.08E-4	-4.13E-2	1.07E-1
GWP-luluc	kg CO2 eq	1.83E-2	1.62E-4	5.61E-6	1.85E-2	9.16E-5	1.49E-3	2.13E-6	-1.29E-2	7.13E-3
ODP	kg CFC11 eq	1.32E-6	1.06E-7	3.10E-10	1.42E-6	5.97E-8	2.13E-7	3.12E-9	-9.15E-7	7.81E-7
AP	mol H+ eq	1.04E-1	2.61E-3	5.54E-5	1.07E-1	1.47E-3	8.89E-3	7.46E-5	-5.32E-2	6.40E-2
EP-fw	kg P eq	5.13E-4	3.77E-6	3.09E-7	5.17E-4	2.13E-6	4.33E-5	9.76E-8	-2.75E-4	2.88E-4
EP-m	kg N eq	1.94E-2	9.34E-4	5.83E-6	2.03E-2	5.28E-4	2.68E-3	5.21E-5	-1.13E-2	1.23E-2
EP-T	mol N eq	2.19E-1	1.03E-2	6.97E-5	2.29E-1	5.81E-3	2.96E-2	3.02E-4	-1.29E-1	1.36E-1
POCP	kg NMVOC eq	9.47E-2	2.94E-3	2.36E-5	9.77E-2	1.66E-3	9.15E-3	1.13E-4	-5.30E-2	5.56E-2
ADP-mm	kg Sb eq	7.91E-4	1.19E-5	7.39E-7	8.04E-4	6.70E-6	3.38E-5	7.52E-8	-1.44E-4	7.00E-4
ADP-f	MJ	8.06E+2	7.03E+0	5.10E-2	8.13E+2	3.97E+0	2.67E+1	2.28E-1	-4.28E+2	4.16E+2
WDP	m3 depriv.	1.54E+1	2.16E-2	1.96E-3	1.54E+1	1.22E-2	5.08E-1	1.19E-3	-7.41E+0	8.54E+0
PM	disease inc.	1.21E-6	4.14E-8	3.41E-10	1.25E-6	2.34E-8	1.41E-7	1.57E-9	-6.77E-7	7.40E-7
IR	kBq U-235 eq	6.72E-1	3.07E-2	3.82E-5	7.02E-1	1.74E-2	8.35E-2	1.06E-3	-3.25E-1	4.79E-1
ETP-fw	CTUe	2.58E+2	5.71E+0	4.54E-1	2.64E+2	3.23E+0	3.12E+1	2.02E-1	-1.35E+2	1.64E+2
HTP-c	CTUh	1.74E-8	2.03E-10	2.32E-11	1.76E-8	1.15E-10	3.76E-9	5.62E-12	-1.00E-8	1.14E-8
HTP-nc	CTUh	2.67E-7	6.81E-9	5.88E-10	2.74E-7	3.85E-9	4.50E-8	1.26E-10	-1.24E-7	1.99E-7
SQP	Pt	1.90E+3	6.02E+0	8.42E-2	1.90E+3	3.40E+0	2.12E+1	5.84E-1	-1.57E+3	3.58E+2
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	3.58E+2	1.01E-1	9.03E-1	3.59E+2	5.70E-2	1.29E+0	8.86E-3	-2.38E+2	1.22E+2
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	3.58E+2	1.01E-1	9.03E-1	3.59E+2	5.70E-2	1.29E+0	8.86E-3	-2.38E+2	1.22E+2
PENRE	MJ	8.65E+2	7.47E+0	5.43E-2	8.72E+2	4.22E+0	2.85E+1	2.42E-1	-4.61E+2	4.45E+2
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	8.65E+2	7.47E+0	5.43E-2	8.72E+2	4.22E+0	2.85E+1	2.42E-1	-4.61E+2	4.45E+2
PET	MJ	1.22E+3	7.57E+0	9.57E-1	1.23E+3	4.28E+0	2.98E+1	2.51E-1	-6.99E+2	5.67E+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	2.57E-1	7.96E-4	5.48E-5	2.58E-1	4.50E-4	1.64E-2	2.81E-4	-1.23E-1	1.51E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	2.72E-4	1.80E-5	1.03E-11	2.90E-4	1.02E-5	4.54E-5	2.75E-7	-2.18E-4	1.28E-4
NHWD	kg	1.98E+0	4.36E-1	3.96E-5	2.41E+0	2.46E-1	1.35E+0	1.00E+0	-1.16E+0	3.84E+0
RWD	kg	7.18E-4	4.78E-5	4.12E-12	7.66E-4	2.70E-5	1.07E-4	1.49E-6	-3.35E-4	5.66E-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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