

Environmental Profile

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

Ecochain v3.5.80



Product: 3043117 - Basic 400 PP for corr.shaft DN315 I-P/E
Unit: 1 piece
Manufacturer: Wavin - PL -Buk - Extra products

LCA standard: EN15804+A2 (2019)
Standard database: Worldwide - Ecoinvent v 3.6 Cut-Off
Externally verified: Yes
Issue date: 08-06-2023
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Verifier: Martijn van Hövell - SGS Search



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.

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	5.29E+0	4.81E-1	5.44E-3	5.77E+0	2.89E-1	3.17E+1	1.38E-1	-1.65E+1	2.14E+1
GWP-f	kg CO2 eq	2.73E+1	4.81E-1	5.49E-3	2.78E+1	2.89E-1	9.47E+0	1.38E-1	-1.65E+1	2.13E+1
GWP-b	kg CO2 eq	-2.21E+1	2.92E-4	-5.80E-5	-2.21E+1	1.75E-4	2.22E+1	1.21E-4	-4.62E-2	1.09E-1
GWP-luluc	kg CO2 eq	1.84E-2	1.70E-4	5.61E-6	1.86E-2	1.02E-4	1.66E-3	2.37E-6	-1.32E-2	7.12E-3
ODP	kg CFC11 eq	1.31E-6	1.11E-7	3.10E-10	1.42E-6	6.66E-8	2.35E-7	3.47E-9	-9.67E-7	7.60E-7
AP	mol H+ eq	1.07E-1	2.74E-3	5.54E-5	1.10E-1	1.65E-3	9.81E-3	8.30E-5	-5.72E-2	6.43E-2
EP-fw	kg P eq	5.19E-4	3.96E-6	3.09E-7	5.23E-4	2.38E-6	4.82E-5	1.09E-7	-2.90E-4	2.83E-4
EP-m	kg N eq	2.02E-2	9.80E-4	5.83E-6	2.12E-2	5.89E-4	2.95E-3	5.76E-5	-1.20E-2	1.27E-2
EP-T	mol N eq	2.27E-1	1.08E-2	6.97E-5	2.38E-1	6.49E-3	3.25E-2	3.37E-4	-1.37E-1	1.41E-1
POCP	kg NMVOC eq	9.96E-2	3.09E-3	2.36E-5	1.03E-1	1.85E-3	1.01E-2	1.26E-4	-5.66E-2	5.82E-2
ADP-mm	kg Sb eq	7.56E-4	1.24E-5	7.39E-7	7.69E-4	7.47E-6	3.74E-5	8.36E-8	-1.54E-4	6.61E-4
ADP-f	MJ	8.83E+2	7.38E+0	5.10E-2	8.90E+2	4.43E+0	2.97E+1	2.54E-1	-4.72E+2	4.53E+2
WDP	m3 depriv.	1.68E+1	2.26E-2	1.96E-3	1.69E+1	1.36E-2	5.65E-1	1.31E-3	-8.17E+0	9.26E+0
PM	disease inc.	1.25E-6	4.34E-8	3.41E-10	1.29E-6	2.61E-8	1.56E-7	1.74E-9	-7.10E-7	7.66E-7
IR	kBq U-235 eq	7.07E-1	3.23E-2	3.82E-5	7.39E-1	1.94E-2	9.23E-2	1.18E-3	-3.46E-1	5.06E-1
ETP-fw	CTUe	2.29E+2	5.99E+0	4.54E-1	2.36E+2	3.60E+0	3.45E+1	2.23E-1	-1.40E+2	1.34E+2
HTP-c	CTUh	1.59E-8	2.13E-10	2.32E-11	1.61E-8	1.28E-10	4.15E-9	6.24E-12	-1.03E-8	1.01E-8
HTP-nc	CTUh	2.30E-7	7.14E-9	5.88E-10	2.38E-7	4.29E-9	4.99E-8	1.40E-10	-1.31E-7	1.61E-7
SQP	Pt	1.89E+3	6.31E+0	8.42E-2	1.90E+3	3.79E+0	2.36E+1	6.51E-1	-1.57E+3	3.55E+2
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	2.82E+2	1.06E-1	9.03E-1	2.83E+2	6.36E-2	1.43E+0	9.87E-3	-2.39E+2	4.53E+1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	2.82E+2	1.06E-1	9.03E-1	2.83E+2	6.36E-2	1.43E+0	9.87E-3	-2.39E+2	4.53E+1
PENRE	MJ	9.47E+2	7.83E+0	5.43E-2	9.55E+2	4.71E+0	3.16E+1	2.69E-1	-5.08E+2	4.83E+2
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	9.47E+2	7.83E+0	5.43E-2	9.55E+2	4.71E+0	3.16E+1	2.69E-1	-5.08E+2	4.83E+2
PET	MJ	1.23E+3	7.94E+0	9.57E-1	1.24E+3	4.77E+0	3.30E+1	2.79E-1	-7.47E+2	5.29E+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	2.76E-1	8.35E-4	5.48E-5	2.77E-1	5.02E-4	1.81E-2	3.13E-4	-1.35E-1	1.61E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	2.79E-4	1.89E-5	1.03E-11	2.98E-4	1.13E-5	5.01E-5	3.06E-7	-2.28E-4	1.32E-4
NHWD	kg	2.05E+0	4.57E-1	3.96E-5	2.51E+0	2.75E-1	1.49E+0	1.12E+0	-1.20E+0	4.19E+0
RWD	kg	7.50E-4	5.02E-5	4.12E-12	8.00E-4	3.02E-5	1.18E-4	1.66E-6	-3.54E-4	5.97E-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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