Environmental Profile

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

Ecochain v3.5.80

Product:	3060249 - PP Insp Chamber Strgt BK 250x125 V2
Unit:	1 Piece
Manufacturer:	Wavin - FR - Varennes

Inspection chambers and manholes for simplified control operations that will guarantee the longevity of all your networks.

LCA standard:	EN15804+A2 (2019)
Standard database:	Worldwide - Ecoinvent v 3.6 Cut-Off
Externally verified:	Yes
Issue date:	24-11-2022
End of validity:	24-11-2027
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 - FR - Varennes (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

A1 Raw material supply A2 Transport A3 Manufacturing

Construction process stage

A4 Transport gate to site
A5 Assembly / Construction installation process

Use stage

B1 Use B2 Maintenance B3 Repair B4 Replacement B5 Refurbishment
B6 Operational energy use B7 Operational water use

End-of-Life stage

C1 De-construction demolition C2 Transport C3 Waste processing
C4 Disposal

Benefits and loads beyond the system boundaries

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

Results

Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	1.88E-1	1.42E-1	1.63E-1	4.93E-1	1.08E-1	3.33E+0	2.59E-2	-3.80E-1	3.58E+0
GWP-f	kg CO2 eq	1.55E+0	1.42E-1	1.28E-1	1.82E+0	1.08E-1	1.86E+0	2.59E-2	-3.82E-1	3.43E+0
GWP-b	kg CO2 eq	-1.36E+0	8.60E-5	3.48E-2	-1.32E+0	6.53E-5	1.47E+0	4.36E-5	2.09E-3	1.43E-1
GWP-luluc	kg CO2 eq	2.16E-3	5.02E-5	1.26E-4	2.33E-3	3.81E-5	2.79E-4	8.56E-7	-4.49E-4	2.20E-3
ODP	kg CFC11 eq	1.72E-7	3.27E-8	1.67E-8	2.21E-7	2.48E-8	3.97E-8	1.29E-9	-9.46E-8	1.93E-7
AP	mol H+ eq	8.11E-3	8.07E-4	7.40E-4	9.66E-3	6.13E-4	1.68E-3	3.06E-5	-1.80E-5	1.20E-2
EP-fw	kg P eq	7.34E-5	1.17E-6	3.06E-6	7.77E-5	8.85E-7	8.14E-6	3.94E-8	-1.76E-6	8.50E-5
EP-m	kg N eq	1.50E-3	2.89E-4	2.16E-4	2.00E-3	2.19E-4	5.08E-4	1.68E-5	-2.07E-4	2.54E-3
EP-T	mol N eq	1.72E-2	3.18E-3	2.62E-3	2.30E-2	2.42E-3	5.60E-3	1.25E-4	-2.77E-3	2.83E-2
POCP	kg NMVOC eq	6.20E-3	9.10E-4	6.39E-4	7.75E-3	6.91E-4	1.73E-3	4.09E-5	-3.77E-4	9.83E-3
ADP-mm	kg Sb eq	1.81E-4	3.67E-6	2.59E-6	1.87E-4	2.78E-6	6.24E-6	3.09E-8	-3.67E-6	1.92E-4
ADP-f	MJ	3.84E+1	2.18E+0	1.78E+0	4.24E+1	1.65E+0	5.02E+0	9.41E-2	2.93E+0	5.21E+1
WDP	m3 depriv.	7.35E-1	6.68E-3	3.56E+0	4.30E+0	5.07E-3	9.49E-2	4.42E-4	2.55E-1	4.66E+0
PM	disease inc.	1.17E-7	1.28E-8	1.07E-8	1.40E-7	9.71E-9	2.72E-8	6.48E-10	-9.50E-9	1.68E-7
IR	kBq U-235 eq	1.20E-1	9.51E-3	5.08E-3	1.35E-1	7.22E-3	1.54E-2	4.33E-4	-3.47E-3	1.54E-1
ETP-fw	CTUe	3.21E+1	1.77E+0	1.74E+0	3.56E+1	1.34E+0	6.23E+0	7.09E-2	-4.85E+0	3.84E+1
HTP-c	CTUh	1.30E-9	6.29E-11	1.32E-10	1.50E-9	4.77E-11	7.08E-10	2.23E-12	-3.42E-10	1.91E-9
HTP-nc	CTUh	2.09E-8	2.11E-9	3.45E-9	2.64E-8	1.60E-9	8.63E-9	4.51E-11	-1.99E-9	3.47E-8
SQP	Pt	1.34E+2	1.86E+0	9.05E+0	1.45E+2	1.41E+0	4.09E+0	2.42E-1	-7.70E+1	7.34E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	2.07E+1	3.12E-2	2.31E+0	2.30E+1	2.37E-2	2.40E-1	3.53E-3	-1.19E+1	1.14E+1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	2.07E+1	3.12E-2	2.31E+0	2.30E+1	2.37E-2	2.40E-1	3.53E-3	-1.19E+1	1.14E+1
PENRE	MJ	4.10E+1	2.31E+0	1.93E+0	4.52E+1	1.75E+0	5.35E+0	9.98E-2	2.73E+0	5.51E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	4.10E+1	2.31E+0	1.93E+0	4.52E+1	1.75E+0	5.35E+0	9.98E-2	2.73E+0	5.51E+1
PET	MJ	6.17E+1	2.34E+0	4.23E+0	6.82E+1	1.78E+0	5.59E+0	1.03E-1	-9.13E+0	6.66E+1
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	2.36E-2	2.46E-4	8.35E-2	1.07E-1	1.87E-4	3.25E-3	1.16E-4	1.40E-3	1.12E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	2.82E-5	5.56E-6	2.61E-6	3.64E-5	4.22E-6	8.56E-6	1.13E-7	-1.90E-5	3.03E-5
NHWD	kg	2.31E-1	1.35E-1	1.91E-2	3.85E-1	1.02E-1	2.63E-1	4.16E-1	-3.35E-2	1.13E+0
RWD	kg	1.22E-4	1.48E-5	5.27E-6	1.42E-4	1.12E-5	1.98E-5	6.14E-7	-7.50E-6	1.66E-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

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