Environmental Profile

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

Ecochain v3.5.80

Product:	3060248 - PP Insp Chamber Straight BK 400x200 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]

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Results

Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	9.82E-1	3.08E-1	3.31E-1	1.62E+0	2.31E-1	7.19E+0	5.64E-2	-1.01E+0	8.09E+0
GWP-f	kg CO2 eq	3.69E+0	3.08E-1	2.64E-1	4.27E+0	2.31E-1	4.26E+0	5.64E-2	-1.01E+0	7.80E+0
GWP-b	kg CO2 eq	-2.71E+0	1.87E-4	6.76E-2	-2.65E+0	1.40E-4	2.93E+0	9.42E-5	4.13E-3	2.88E-1
GWP-luluc	kg CO2 eq	4.73E-3	1.09E-4	2.21E-4	5.05E-3	8.17E-5	5.94E-4	1.85E-6	-9.23E-4	4.81E-3
ODP	kg CFC11 eq	4.38E-7	7.10E-8	3.41E-8	5.44E-7	5.32E-8	8.49E-8	2.79E-9	-2.14E-7	4.71E-7
AP	mol H+ eq	1.92E-2	1.76E-3	1.37E-3	2.23E-2	1.31E-3	3.61E-3	6.60E-5	-3.76E-4	2.70E-2
EP-fw	kg P eq	1.65E-4	2.54E-6	6.24E-6	1.74E-4	1.90E-6	1.74E-5	8.51E-8	-4.73E-6	1.89E-4
EP-m	kg N eq	3.48E-3	6.28E-4	4.09E-4	4.51E-3	4.70E-4	1.09E-3	3.74E-5	-4.92E-4	5.62E-3
EP-T	mol N eq	3.98E-2	6.92E-3	4.78E-3	5.15E-2	5.18E-3	1.20E-2	2.69E-4	-6.41E-3	6.26E-2
POCP	kg NMVOC eq	1.48E-2	1.98E-3	1.21E-3	1.80E-2	1.48E-3	3.72E-3	8.84E-5	-1.09E-3	2.22E-2
ADP-mm	kg Sb eq	5.06E-4	7.97E-6	4.42E-6	5.19E-4	5.97E-6	1.33E-5	6.66E-8	-1.24E-5	5.26E-4
ADP-f	MJ	9.48E+1	4.73E+0	3.70E+0	1.03E+2	3.54E+0	1.07E+1	2.03E-1	7.91E-1	1.18E+2
WDP	m3 depriv.	1.84E+0	1.45E-2	7.66E+0	9.52E+0	1.09E-2	2.05E-1	9.52E-4	4.67E-1	1.02E+1
PM	disease inc.	2.67E-7	2.78E-8	2.03E-8	3.15E-7	2.08E-8	5.80E-8	1.40E-9	-2.14E-8	3.74E-7
IR	kBq U-235 eq	2.81E-1	2.07E-2	1.08E-2	3.12E-1	1.55E-2	3.28E-2	9.36E-4	-9.77E-3	3.52E-1
ETP-fw	CTUe	7.44E+1	3.84E+0	3.18E+0	8.14E+1	2.88E+0	1.37E+1	1.57E-1	-1.04E+1	8.78E+1
HTP-c	CTUh	2.87E-9	1.37E-10	2.59E-10	3.27E-9	1.02E-10	1.50E-9	4.82E-12	-7.12E-10	4.16E-9
HTP-nc	CTUh	4.83E-8	4.58E-9	6.50E-9	5.94E-8	3.43E-9	1.85E-8	9.82E-11	-4.54E-9	7.69E-8
SQP	Pt	2.70E+2	4.05E+0	1.35E+1	2.88E+2	3.03E+0	8.71E+0	5.23E-1	-1.54E+2	1.46E+2
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	4.20E+1	6.79E-2	3.44E+0	4.55E+1	5.08E-2	5.13E-1	7.63E-3	-2.38E+1	2.23E+1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	4.20E+1	6.79E-2	3.44E+0	4.55E+1	5.08E-2	5.13E-1	7.63E-3	-2.38E+1	2.23E+1
PENRE	MJ	1.01E+2	5.02E+0	4.00E+0	1.10E+2	3.76E+0	1.14E+1	2.15E-1	-8.74E-2	1.25E+2
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.01E+2	5.02E+0	4.00E+0	1.10E+2	3.76E+0	1.14E+1	2.15E-1	-8.74E-2	1.25E+2
PET	MJ	1.43E+2	5.09E+0	7.44E+0	1.56E+2	3.81E+0	1.19E+1	2.23E-1	-2.39E+1	1.48E+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	5.61E-2	5.35E-4	1.79E-1	2.36E-1	4.01E-4	7.29E-3	2.50E-4	1.81E-3	2.46E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	6.42E-5	1.21E-5	5.61E-6	8.19E-5	9.06E-6	1.84E-5	2.44E-7	-4.23E-5	6.73E-5
NHWD	kg	5.15E-1	2.93E-1	4.11E-2	8.49E-1	2.19E-1	5.64E-1	8.97E-1	-7.02E-2	2.46E+0
RWD	kg	2.94E-4	3.22E-5	1.14E-5	3.37E-4	2.41E-5	4.21E-5	1.32E-6	-1.84E-5	3.86E-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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