Environmental Profile

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

Ecochain v3.5.80

Product:	3026923 - PP Insp Chamber Strgt GY 250x160
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

This document and supporting material contain confidential and proprietary business information of Wavin - FR - Varennes. These materials may be printed or (photo) copied or otherwise used only with the written consent of Wavin - FR - Varennes.

Results

Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	3.03E+0	2.68E-1	1.93E-1	3.50E+0	1.13E-1	3.62E+0	2.88E-2	-2.47E+0	4.78E+0
GWP-f	kg CO2 eq	4.47E+0	2.67E-1	1.52E-1	4.89E+0	1.13E-1	2.15E+0	2.88E-2	-2.47E+0	4.72E+0
GWP-b	kg CO2 eq	-1.44E+0	1.62E-4	4.12E-2	-1.40E+0	6.87E-5	1.47E+0	4.61E-5	-6.85E-3	5.96E-2
GWP-luluc	kg CO2 eq	2.40E-3	9.47E-5	1.49E-4	2.64E-3	4.01E-5	3.09E-4	9.08E-7	-9.43E-4	2.05E-3
ODP	kg CFC11 eq	2.37E-7	6.16E-8	1.98E-8	3.18E-7	2.61E-8	4.42E-8	1.36E-9	-1.46E-7	2.43E-7
AP	mol H+ eq	1.83E-2	1.52E-3	8.77E-4	2.07E-2	6.45E-4	1.89E-3	3.23E-5	-6.96E-3	1.63E-2
EP-fw	kg P eq	9.58E-5	2.20E-6	3.62E-6	1.02E-4	9.31E-7	9.04E-6	4.17E-8	-3.03E-5	8.14E-5
EP-m	kg N eq	3.25E-3	5.45E-4	2.56E-4	4.05E-3	2.31E-4	5.80E-4	1.82E-5	-1.38E-3	3.50E-3
EP-T	mol N eq	3.64E-2	6.01E-3	3.10E-3	4.55E-2	2.54E-3	6.35E-3	1.32E-4	-1.57E-2	3.88E-2
POCP	kg NMVOC eq	1.58E-2	1.72E-3	7.57E-4	1.82E-2	7.27E-4	1.95E-3	4.35E-5	-6.52E-3	1.44E-2
ADP-mm	kg Sb eq	2.49E-4	6.92E-6	3.07E-6	2.59E-4	2.93E-6	6.91E-6	3.26E-8	-2.22E-5	2.47E-4
ADP-f	MJ	1.47E+2	4.11E+0	2.11E+0	1.53E+2	1.74E+0	5.56E+0	9.94E-2	-7.01E+1	9.05E+1
WDP	m3 depriv.	2.99E+0	1.26E-2	4.22E+0	7.23E+0	5.33E-3	1.07E-1	4.79E-4	-1.15E+0	6.19E+0
PM	disease inc.	2.05E-7	2.41E-8	1.27E-8	2.42E-7	1.02E-8	3.01E-8	6.84E-10	-6.94E-8	2.14E-7
IR	kBq U-235 eq	1.38E-1	1.79E-2	6.03E-3	1.62E-1	7.59E-3	1.70E-2	4.58E-4	-3.99E-2	1.47E-1
ETP-fw	CTUe	4.73E+1	3.33E+0	2.06E+0	5.27E+1	1.41E+0	7.11E+0	7.64E-2	-1.47E+1	4.65E+1
HTP-c	CTUh	3.10E-9	1.19E-10	1.56E-10	3.38E-9	5.02E-11	7.92E-10	2.37E-12	-7.89E-10	3.43E-9
HTP-nc	CTUh	4.85E-8	3.97E-9	4.08E-9	5.66E-8	1.68E-9	9.65E-9	4.82E-11	-1.44E-8	5.36E-8
SQP	Pt	1.35E+2	3.51E+0	1.07E+1	1.49E+2	1.49E+0	4.51E+0	2.56E-1	-7.90E+1	7.67E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	2.13E+1	5.89E-2	2.73E+0	2.41E+1	2.49E-2	2.67E-1	3.73E-3	-1.29E+1	1.16E+1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	2.13E+1	5.89E-2	2.73E+0	2.41E+1	2.49E-2	2.67E-1	3.73E-3	-1.29E+1	1.16E+1
PENRE	MJ	1.58E+2	4.36E+0	2.28E+0	1.64E+2	1.84E+0	5.93E+0	1.05E-1	-7.58E+1	9.63E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.58E+2	4.36E+0	2.28E+0	1.64E+2	1.84E+0	5.93E+0	1.05E-1	-7.58E+1	9.63E+1
PET	MJ	1.79E+2	4.42E+0	5.01E+0	1.88E+2	1.87E+0	6.19E+0	1.09E-1	-8.86E+1	1.08E+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	5.51E-2	4.65E-4	9.90E-2	1.55E-1	1.97E-4	3.69E-3	1.22E-4	-1.94E-2	1.39E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	3.71E-5	1.05E-5	3.09E-6	5.07E-5	4.44E-6	9.51E-6	1.20E-7	-2.80E-5	3.69E-5
NHWD	kg	2.93E-1	2.54E-1	2.27E-2	5.70E-1	1.08E-1	2.92E-1	4.39E-1	-9.42E-2	1.31E+0
RWD	kg	1.43E-4	2.79E-5	6.25E-6	1.78E-4	1.18E-5	2.18E-5	6.48E-7	-3.93E-5	1.72E-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