Environmental Profile

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

Ecochain v3.5.80

Product:	3040439 - EVAC Pipe GY 250x4,9 NFE+NFME L=4 SG/CH
Unit:	1 Piece
Manufacturer:	Wavin - FR - Varennes

The Wavin range of PVC pipes and fittings to be glued covers all the usual diameters and allows you to create networks that are 100% compatible, homogeneous and meet the requirements of the French market.

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	2.67E+1	1.01E+0	1.28E+0	2.90E+1	4.35E-1	1.47E+1	1.23E-1	-1.63E+1	2.79E+1
GWP-f	kg CO2 eq	3.00E+1	1.01E+0	1.04E+0	3.20E+1	4.35E-1	1.10E+1	1.23E-1	-1.62E+1	2.74E+1
GWP-b	kg CO2 eq	-3.66E+0	6.15E-4	2.44E-1	-3.42E+0	2.64E-4	3.63E+0	1.55E-4	-1.13E-1	9.65E-2
GWP-luluc	kg CO2 eq	4.16E-1	3.58E-4	6.52E-4	4.17E-1	1.54E-4	5.02E-3	3.34E-6	-1.10E-2	4.11E-1
ODP	kg CFC11 eq	1.59E-5	2.33E-7	1.32E-7	1.63E-5	1.00E-7	1.33E-6	4.93E-9	-8.09E-6	9.61E-6
AP	mol H+ eq	1.46E-1	5.77E-3	4.49E-3	1.56E-1	2.48E-3	2.35E-2	1.18E-4	-6.30E-2	1.19E-1
EP-fw	kg P eq	1.41E-3	8.33E-6	2.42E-5	1.45E-3	3.58E-6	1.66E-4	1.50E-7	-6.03E-4	1.01E-3
EP-m	kg N eq	2.67E-2	2.06E-3	1.41E-3	3.01E-2	8.86E-4	5.79E-3	7.24E-5	-1.11E-2	2.58E-2
EP-T	mol N eq	2.74E-1	2.27E-2	1.53E-2	3.12E-1	9.76E-3	6.39E-2	4.72E-4	-1.20E-1	2.66E-1
POCP	kg NMVOC eq	9.07E-2	6.50E-3	4.18E-3	1.01E-1	2.79E-3	1.92E-2	1.61E-4	-4.07E-2	8.28E-2
ADP-mm	kg Sb eq	2.14E-2	2.62E-5	1.22E-5	2.14E-2	1.12E-5	9.25E-5	1.18E-7	-3.31E-4	2.12E-2
ADP-f	MJ	7.46E+2	1.55E+1	1.47E+1	7.76E+2	6.67E+0	6.48E+1	3.57E-1	-3.94E+2	4.54E+2
WDP	m3 depriv.	4.86E+1	4.77E-2	3.20E+1	8.07E+1	2.05E-2	2.47E+0	2.23E-3	-2.34E+1	5.99E+1
PM	disease inc.	1.11E-6	9.14E-8	6.97E-8	1.28E-6	3.92E-8	2.98E-7	2.45E-9	-4.17E-7	1.20E-6
IR	kBq U-235 eq	1.64E+0	6.79E-2	4.47E-2	1.75E+0	2.92E-2	2.25E-1	1.63E-3	-7.57E-1	1.25E+0
ETP-fw	CTUe	6.92E+2	1.26E+1	1.03E+1	7.14E+2	5.42E+0	4.69E+2	5.15E+0	-2.40E+2	9.53E+2
HTP-c	CTUh	2.49E-8	4.49E-10	9.52E-10	2.63E-8	1.93E-10	7.37E-9	9.41E-12	-8.74E-9	2.51E-8
HTP-nc	CTUh	8.09E-7	1.50E-8	2.23E-8	8.46E-7	6.46E-9	1.69E-7	9.95E-10	-3.01E-7	7.21E-7
SQP	Pt	4.43E+2	1.33E+1	2.38E+1	4.80E+2	5.71E+0	4.09E+1	9.04E-1	-1.10E+2	4.17E+2
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	8.83E+1	2.23E-1	6.16E+0	9.47E+1	9.57E-2	4.58E+0	1.27E-2	-3.08E+1	6.86E+1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	8.83E+1	2.23E-1	6.16E+0	9.47E+1	9.57E-2	4.58E+0	1.27E-2	-3.08E+1	6.86E+1
PENRE	MJ	8.00E+2	1.65E+1	1.60E+1	8.33E+2	7.08E+0	6.89E+1	3.79E-1	-4.24E+2	4.85E+2
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	8.00E+2	1.65E+1	1.60E+1	8.33E+2	7.08E+0	6.89E+1	3.79E-1	-4.24E+2	4.85E+2
PET	MJ	8.89E+2	1.67E+1	2.21E+1	9.27E+2	7.18E+0	7.35E+1	3.92E-1	-4.55E+2	5.53E+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	5.44E-1	1.76E-3	7.50E-1	1.30E+0	7.55E-4	6.78E-2	4.36E-4	-2.45E-1	1.12E+0

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	3.04E-3	3.97E-5	2.35E-5	3.11E-3	1.71E-5	1.05E-4	4.32E-7	-3.26E-4	2.90E-3
NHWD	kg	3.18E+0	9.63E-1	1.72E-1	4.31E+0	4.13E-1	2.46E+0	1.65E+0	-1.27E+0	7.57E+0
RWD	kg	1.44E-3	1.06E-4	4.75E-5	1.59E-3	4.54E-5	2.43E-4	2.33E-6	-6.69E-4	1.21E-3
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

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