

# Environmental Profile

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

Ecochain v3.5.80



Product: 3066080 - EVAC Pipe GY 40x3 NFE+NFME L=1 PL  
 Unit: 1 Piece  
 Manufacturer: Wavin - FR - Varennes

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



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.

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

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# Results

Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	9.02E-2	3.95E-2	3.95E-2	1.69E-1	1.23E-2	6.75E-1	3.79E-3	-1.19E-1	7.41E-1
GWP-f	kg CO2 eq	4.15E-1	3.94E-2	3.13E-2	4.85E-1	1.23E-2	3.26E-1	3.79E-3	-1.19E-1	7.08E-1
GWP-b	kg CO2 eq	-3.42E-1	1.82E-5	8.21E-3	-3.34E-1	7.46E-6	3.49E-1	4.56E-6	-2.49E-4	1.48E-2
GWP-luluc	kg CO2 eq	1.79E-2	1.61E-5	2.80E-5	1.79E-2	4.35E-6	1.42E-4	1.08E-7	-7.36E-5	1.80E-2
ODP	kg CFC11 eq	1.35E-7	8.90E-9	4.06E-9	1.48E-7	2.83E-9	3.77E-8	1.43E-10	-2.54E-8	1.63E-7
AP	mol H+ eq	2.30E-3	3.93E-4	1.69E-4	2.86E-3	7.00E-5	6.87E-4	3.49E-6	-3.41E-4	3.28E-3
EP-fw	kg P eq	2.34E-5	2.98E-7	7.43E-7	2.44E-5	1.01E-7	4.70E-6	4.74E-9	-1.83E-6	2.74E-5
EP-m	kg N eq	4.83E-4	1.18E-4	5.02E-5	6.51E-4	2.51E-5	1.74E-4	2.03E-6	-8.68E-5	7.66E-4
EP-T	mol N eq	4.90E-3	1.30E-3	5.95E-4	6.79E-3	2.76E-4	1.92E-3	1.38E-5	-1.18E-3	7.83E-3
POCP	kg NMVOC eq	1.46E-3	3.57E-4	1.49E-4	1.97E-3	7.89E-5	5.73E-4	4.75E-6	-2.82E-4	2.34E-3
ADP-mm	kg Sb eq	2.53E-4	9.04E-7	5.68E-7	2.55E-4	3.18E-7	2.63E-6	3.57E-9	-7.63E-7	2.57E-4
ADP-f	MJ	9.65E+0	5.89E-1	4.38E-1	1.07E+1	1.89E-1	1.85E+0	1.04E-2	-2.21E+0	1.05E+1
WDP	m3 depriv.	4.45E-1	1.68E-3	8.94E-1	1.34E+0	5.79E-4	6.95E-2	1.02E-4	-5.05E-2	1.36E+0
PM	disease inc.	3.29E-8	3.19E-9	2.49E-9	3.86E-8	1.11E-9	8.63E-9	7.16E-11	-3.73E-9	4.47E-8
IR	kBq U-235 eq	2.98E-2	2.57E-3	1.27E-3	3.37E-2	8.25E-4	6.43E-3	4.71E-5	-2.26E-3	3.87E-2
ETP-fw	CTUe	1.12E+1	4.65E-1	3.96E-1	1.21E+1	1.53E-1	1.31E+1	1.44E-1	-2.01E+0	2.35E+1
HTP-c	CTUh	4.27E-10	1.83E-11	3.13E-11	4.76E-10	5.45E-12	2.47E-10	3.05E-13	-4.39E-11	6.86E-10
HTP-nc	CTUh	9.75E-9	5.34E-10	7.99E-10	1.11E-8	1.83E-10	4.87E-9	2.83E-11	-1.27E-9	1.49E-8
SQP	Pt	3.44E+1	4.46E-1	1.84E+0	3.66E+1	1.61E-1	1.17E+0	2.64E-2	-6.89E+0	3.11E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	5.49E+0	7.84E-3	4.69E-1	5.96E+0	2.71E-3	1.29E-1	3.60E-4	-1.40E+0	4.70E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	5.49E+0	7.84E-3	4.69E-1	5.96E+0	2.71E-3	1.29E-1	3.60E-4	-1.40E+0	4.70E+0
PENRE	MJ	1.03E+1	6.25E-1	4.73E-1	1.14E+1	2.00E-1	1.97E+0	1.11E-2	-2.43E+0	1.12E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.03E+1	6.25E-1	4.73E-1	1.14E+1	2.00E-1	1.97E+0	1.11E-2	-2.43E+0	1.12E+1
PET	MJ	1.58E+1	6.33E-1	9.42E-1	1.74E+1	2.03E-1	2.10E+0	1.14E-2	-3.83E+0	1.59E+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	7.03E-3	6.18E-5	2.09E-2	2.80E-2	2.14E-5	1.94E-3	1.26E-5	-6.26E-4	2.94E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	3.96E-5	1.37E-6	6.55E-7	4.17E-5	4.83E-7	3.02E-6	1.30E-8	-2.52E-6	4.27E-5
NHWD	kg	6.48E-2	3.17E-2	4.80E-3	1.01E-1	1.17E-2	7.46E-2	4.68E-2	-5.82E-3	2.29E-1
RWD	kg	2.69E-5	4.02E-6	1.32E-6	3.22E-5	1.28E-6	6.99E-6	6.74E-8	-2.32E-6	3.82E-5
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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