

# Environmental Profile

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

Ecochain v3.5.80



Product: 3066082 - EVAC Pipe GY 32x3 NFE+NFME L=2 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	2.97E-1	6.23E-2	6.35E-2	4.23E-1	1.98E-2	9.00E-1	6.07E-3	-1.85E-1	1.16E+0
GWP-f	kg CO2 eq	6.35E-1	6.22E-2	5.04E-2	7.48E-1	1.97E-2	5.22E-1	6.06E-3	-1.84E-1	1.11E+0
GWP-b	kg CO2 eq	-3.67E-1	2.86E-5	1.31E-2	-3.54E-1	1.20E-5	3.78E-1	7.32E-6	-3.67E-4	2.42E-2
GWP-luluc	kg CO2 eq	2.85E-2	2.54E-5	4.40E-5	2.85E-2	6.99E-6	2.28E-4	1.73E-7	-8.92E-5	2.87E-2
ODP	kg CFC11 eq	2.12E-7	1.40E-8	6.53E-9	2.33E-7	4.55E-9	6.06E-8	2.29E-10	-3.81E-8	2.60E-7
AP	mol H+ eq	3.48E-3	6.24E-4	2.69E-4	4.37E-3	1.12E-4	1.09E-3	5.59E-6	-4.47E-4	5.13E-3
EP-fw	kg P eq	3.61E-5	4.70E-7	1.19E-6	3.78E-5	1.62E-7	7.55E-6	7.58E-9	-2.49E-6	4.30E-5
EP-m	kg N eq	7.14E-4	1.87E-4	7.98E-5	9.80E-4	4.02E-5	2.72E-4	3.26E-6	-1.12E-4	1.18E-3
EP-T	mol N eq	7.08E-3	2.06E-3	9.41E-4	1.01E-2	4.43E-4	3.00E-3	2.22E-5	-1.47E-3	1.21E-2
POCP	kg NMVOC eq	2.14E-3	5.66E-4	2.36E-4	2.95E-3	1.27E-4	8.98E-4	7.63E-6	-3.72E-4	3.61E-3
ADP-mm	kg Sb eq	4.04E-4	1.42E-6	8.89E-7	4.07E-4	5.11E-7	4.22E-6	5.72E-9	-1.08E-6	4.10E-4
ADP-f	MJ	1.50E+1	9.29E-1	7.05E-1	1.66E+1	3.03E-1	2.96E+0	1.67E-2	-3.41E+0	1.65E+1
WDP	m3 depriv.	7.05E-1	2.65E-3	1.45E+0	2.16E+0	9.30E-4	1.12E-1	1.60E-4	-7.39E-2	2.19E+0
PM	disease inc.	4.31E-8	5.02E-9	3.96E-9	5.20E-8	1.78E-9	1.37E-8	1.15E-10	-4.44E-9	6.32E-8
IR	kBq U-235 eq	4.57E-2	4.05E-3	2.05E-3	5.18E-2	1.32E-3	1.03E-2	7.57E-5	-3.22E-3	6.02E-2
ETP-fw	CTUe	1.71E+1	7.33E-1	6.27E-1	1.85E+1	2.46E-1	2.12E+1	2.33E-1	-2.42E+0	3.77E+1
HTP-c	CTUh	6.19E-10	2.88E-11	5.01E-11	6.98E-10	8.76E-12	3.83E-10	4.87E-13	-5.69E-11	1.03E-9
HTP-nc	CTUh	1.49E-8	8.41E-10	1.27E-9	1.70E-8	2.93E-10	7.80E-9	4.57E-11	-1.64E-9	2.35E-8
SQP	Pt	3.86E+1	7.03E-1	2.82E+0	4.21E+1	2.59E-1	1.87E+0	4.23E-2	-7.53E+0	3.68E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	6.33E+0	1.24E-2	7.19E-1	7.06E+0	4.35E-3	2.08E-1	5.79E-4	-1.53E+0	5.74E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	6.33E+0	1.24E-2	7.19E-1	7.06E+0	4.35E-3	2.08E-1	5.79E-4	-1.53E+0	5.74E+0
PENRE	MJ	1.60E+1	9.86E-1	7.63E-1	1.78E+1	3.22E-1	3.15E+0	1.78E-2	-3.74E+0	1.75E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.60E+1	9.86E-1	7.63E-1	1.78E+1	3.22E-1	3.15E+0	1.78E-2	-3.74E+0	1.75E+1
PET	MJ	2.24E+1	9.99E-1	1.48E+0	2.49E+1	3.26E-1	3.35E+0	1.83E-2	-5.27E+0	2.33E+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	1.09E-2	9.73E-5	3.39E-2	4.49E-2	3.43E-5	3.10E-3	2.02E-5	-9.07E-4	4.72E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	6.22E-5	2.17E-6	1.06E-6	6.54E-5	7.75E-7	4.82E-6	2.08E-8	-3.84E-6	6.72E-5
NHWD	kg	9.68E-2	4.99E-2	7.77E-3	1.55E-1	1.88E-2	1.16E-1	7.51E-2	-7.52E-3	3.57E-1
RWD	kg	4.04E-5	6.34E-6	2.15E-6	4.89E-5	2.06E-6	1.12E-5	1.08E-7	-3.30E-6	5.90E-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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