

# Environmental Profile

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

Ecochain v3.5.80



Product: 3025654 - Gutter PVC Pipe LGY 50 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	1.34E+0	4.46E-2	6.44E-2	1.45E+0	1.93E-2	7.18E-1	5.95E-3	-8.06E-1	1.39E+0
GWP-f	kg CO2 eq	1.51E+0	4.46E-2	5.07E-2	1.60E+0	1.92E-2	5.39E-1	5.95E-3	-8.00E-1	1.37E+0
GWP-b	kg CO2 eq	-1.67E-1	2.71E-5	1.37E-2	-1.53E-1	1.17E-5	1.78E-1	7.45E-6	-5.54E-3	2.01E-2
GWP-luluc	kg CO2 eq	1.34E-3	1.58E-5	4.96E-5	1.41E-3	6.81E-6	2.34E-4	1.59E-7	-5.39E-4	1.11E-3
ODP	kg CFC11 eq	7.86E-7	1.03E-8	6.61E-9	8.03E-7	4.43E-9	6.38E-8	2.25E-10	-3.99E-7	4.73E-7
AP	mol H+ eq	8.35E-3	2.54E-4	2.92E-4	8.89E-3	1.10E-4	1.10E-3	5.47E-6	-3.09E-3	7.02E-3
EP-fw	kg P eq	6.98E-5	3.67E-7	1.21E-6	7.14E-5	1.58E-7	7.82E-6	7.16E-9	-2.95E-5	4.99E-5
EP-m	kg N eq	1.26E-3	9.08E-5	8.51E-5	1.43E-3	3.92E-5	2.69E-4	3.34E-6	-5.44E-4	1.20E-3
EP-T	mol N eq	1.37E-2	1.00E-3	1.03E-3	1.58E-2	4.32E-4	2.96E-3	2.18E-5	-5.91E-3	1.33E-2
POCP	kg NMVOC eq	4.60E-3	2.86E-4	2.52E-4	5.13E-3	1.24E-4	8.86E-4	7.49E-6	-1.99E-3	4.15E-3
ADP-mm	kg Sb eq	9.56E-4	1.15E-6	1.02E-6	9.58E-4	4.98E-7	4.28E-6	5.49E-9	-1.62E-5	9.47E-4
ADP-f	MJ	3.70E+1	6.84E-1	7.06E-1	3.84E+1	2.95E-1	2.98E+0	1.64E-2	-1.94E+1	2.23E+1
WDP	m3 depriv.	2.46E+0	2.10E-3	1.41E+0	3.88E+0	9.06E-4	1.17E-1	1.15E-4	-1.14E+0	2.85E+0
PM	disease inc.	5.75E-8	4.02E-9	4.23E-9	6.58E-8	1.74E-9	1.36E-8	1.13E-10	-2.04E-8	6.08E-8
IR	kBq U-235 eq	8.34E-2	2.99E-3	2.01E-3	8.84E-2	1.29E-3	1.04E-2	7.52E-5	-3.71E-2	6.32E-2
ETP-fw	CTUe	3.44E+1	5.55E-1	6.85E-1	3.56E+1	2.40E-1	2.27E+1	2.51E-1	-1.17E+1	4.71E+1
HTP-c	CTUh	1.41E-9	1.98E-11	5.21E-11	1.48E-9	8.54E-12	3.47E-10	4.54E-13	-4.30E-10	1.41E-9
HTP-nc	CTUh	4.12E-8	6.62E-10	1.36E-9	4.32E-8	2.86E-10	7.99E-9	4.84E-11	-1.48E-8	3.68E-8
SQP	Pt	2.17E+1	5.85E-1	3.55E+0	2.58E+1	2.53E-1	1.84E+0	4.19E-2	-5.51E+0	2.24E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	4.34E+0	9.81E-3	9.04E-1	5.25E+0	4.24E-3	2.15E-1	6.00E-4	-1.53E+0	3.94E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	4.34E+0	9.81E-3	9.04E-1	5.25E+0	4.24E-3	2.15E-1	6.00E-4	-1.53E+0	3.94E+0
PENRE	MJ	3.97E+1	7.26E-1	7.63E-1	4.12E+1	3.14E-1	3.17E+0	1.74E-2	-2.09E+1	2.37E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	3.97E+1	7.26E-1	7.63E-1	4.12E+1	3.14E-1	3.17E+0	1.74E-2	-2.09E+1	2.37E+1
PET	MJ	4.40E+1	7.36E-1	1.67E+0	4.64E+1	3.18E-1	3.38E+0	1.80E-2	-2.24E+1	2.77E+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	2.85E-2	7.74E-5	3.31E-2	6.16E-2	3.34E-5	3.22E-3	2.01E-5	-1.20E-2	5.30E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.38E-4	1.75E-6	1.03E-6	1.40E-4	7.55E-7	4.82E-6	2.00E-8	-1.62E-5	1.30E-4
NHWD	kg	2.10E-1	4.24E-2	7.57E-3	2.60E-1	1.83E-2	1.12E-1	7.32E-2	-6.23E-2	4.02E-1
RWD	kg	7.34E-5	4.65E-6	2.09E-6	8.01E-5	2.01E-6	1.12E-5	1.07E-7	-3.28E-5	6.06E-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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