Environmental Profile

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

Ecochain v3.5.80

Product:	3025446 - Gutter PVC Pipe LGY 80 L= 2 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	1.82E+0	6.06E-2	8.77E-2	1.97E+0	2.67E-2	8.30E-1	7.90E-3	-1.05E+0	1.78E+0
GWP-f	kg CO2 eq	1.93E+0	6.06E-2	6.91E-2	2.06E+0	2.67E-2	7.01E-1	7.90E-3	-1.04E+0	1.75E+0
GWP-b	kg CO2 eq	-1.14E-1	3.68E-5	1.85E-2	-9.51E-2	1.62E-5	1.29E-1	9.93E-6	-7.32E-3	2.68E-2
GWP-luluc	kg CO2 eq	5.88E-3	2.14E-5	6.54E-5	5.97E-3	9.44E-6	3.16E-4	2.13E-7	-6.95E-4	5.60E-3
ODP	kg CFC11 eq	1.03E-6	1.40E-8	9.00E-9	1.05E-6	6.14E-9	8.48E-8	3.07E-10	-5.23E-7	6.17E-7
AP	mol H+ eq	9.56E-3	3.45E-4	3.89E-4	1.03E-2	1.52E-4	1.47E-3	7.41E-6	-4.02E-3	7.90E-3
EP-fw	kg P eq	8.75E-5	4.98E-7	1.65E-6	8.96E-5	2.19E-7	1.05E-5	9.56E-9	-3.87E-5	6.16E-5
EP-m	kg N eq	1.58E-3	1.23E-4	1.14E-4	1.82E-3	5.43E-5	3.58E-4	4.55E-6	-7.00E-4	1.54E-3
EP-T	mol N eq	1.69E-2	1.36E-3	1.37E-3	1.96E-2	5.99E-4	3.95E-3	2.96E-5	-7.54E-3	1.67E-2
POCP	kg NMVOC eq	5.73E-3	3.89E-4	3.38E-4	6.46E-3	1.71E-4	1.19E-3	1.01E-5	-2.59E-3	5.24E-3
ADP-mm	kg Sb eq	9.69E-4	1.57E-6	1.34E-6	9.72E-4	6.90E-7	5.78E-6	7.41E-9	-2.13E-5	9.57E-4
ADP-f	MJ	4.82E+1	9.30E-1	9.64E-1	5.01E+1	4.09E-1	4.03E+0	2.23E-2	-2.54E+1	2.92E+1
WDP	m3 depriv.	3.15E+0	2.85E-3	1.94E+0	5.09E+0	1.26E-3	1.57E-1	1.47E-4	-1.51E+0	3.74E+0
PM	disease inc.	6.66E-8	5.47E-9	5.67E-9	7.77E-8	2.41E-9	1.84E-8	1.53E-10	-2.61E-8	7.26E-8
IR	kBq U-235 eq	1.04E-1	4.06E-3	2.77E-3	1.11E-1	1.79E-3	1.41E-2	1.02E-4	-4.88E-2	7.79E-2
ETP-fw	CTUe	4.02E+1	7.55E-1	9.12E-1	4.19E+1	3.32E-1	3.01E+1	3.31E-1	-1.50E+1	5.76E+1
HTP-c	CTUh	1.58E-9	2.69E-11	7.04E-11	1.68E-9	1.18E-11	4.57E-10	6.03E-13	-5.58E-10	1.59E-9
HTP-nc	CTUh	5.14E-8	9.00E-10	1.82E-9	5.41E-8	3.96E-10	1.07E-8	6.40E-11	-1.93E-8	4.60E-8
SQP	Pt	1.79E+1	7.96E-1	4.55E+0	2.33E+1	3.50E-1	2.52E+0	5.68E-2	-5.07E+0	2.11E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	4.09E+0	1.33E-2	1.16E+0	5.26E+0	5.87E-3	2.89E-1	8.07E-4	-1.58E+0	3.98E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	4.09E+0	1.33E-2	1.16E+0	5.26E+0	5.87E-3	2.89E-1	8.07E-4	-1.58E+0	3.98E+0
PENRE	MJ	5.17E+1	9.87E-1	1.04E+0	5.38E+1	4.35E-1	4.29E+0	2.37E-2	-2.74E+1	3.12E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	5.17E+1	9.87E-1	1.04E+0	5.38E+1	4.35E-1	4.29E+0	2.37E-2	-2.74E+1	3.12E+1
PET	MJ	5.58E+1	1.00E+0	2.20E+0	5.90E+1	4.40E-1	4.58E+0	2.45E-2	-2.89E+1	3.51E+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	3.51E-2	1.05E-4	4.55E-2	8.08E-2	4.63E-5	4.29E-3	2.73E-5	-1.58E-2	6.94E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.37E-4	2.38E-6	1.42E-6	1.41E-4	1.05E-6	6.51E-6	2.71E-8	-2.10E-5	1.27E-4
NHWD	kg	2.14E-1	5.76E-2	1.04E-2	2.82E-1	2.54E-2	1.50E-1	1.01E-1	-8.10E-2	4.78E-1
RWD	kg	9.09E-5	6.32E-6	2.88E-6	1.00E-4	2.78E-6	1.51E-5	1.46E-7	-4.30E-5	7.51E-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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