

Environmental Profile

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

Ecochain v3.5.80



Product: 3025655 - Gutter PVC Pipe Sand 100 L= 4 SG/CH
 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]

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Results

Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	4.34E+0	1.54E-1	2.08E-1	4.70E+0	6.64E-2	2.25E+0	1.95E-2	-2.61E+0	4.43E+0
GWP-f	kg CO2 eq	4.80E+0	1.54E-1	1.65E-1	5.12E+0	6.63E-2	1.74E+0	1.95E-2	-2.59E+0	4.35E+0
GWP-b	kg CO2 eq	-4.76E-1	9.34E-5	4.31E-2	-4.32E-1	4.03E-5	5.16E-1	2.47E-5	-1.82E-2	6.51E-2
GWP-luluc	kg CO2 eq	1.42E-2	5.44E-5	1.46E-4	1.44E-2	2.35E-5	7.91E-4	5.22E-7	-1.75E-3	1.34E-2
ODP	kg CFC11 eq	2.58E-6	3.54E-8	2.14E-8	2.64E-6	1.53E-8	2.13E-7	7.63E-10	-1.30E-6	1.57E-6
AP	mol H+ eq	2.39E-2	8.76E-4	8.86E-4	2.56E-2	3.78E-4	3.69E-3	1.84E-5	-1.01E-2	1.97E-2
EP-fw	kg P eq	2.21E-4	1.27E-6	3.91E-6	2.27E-4	5.46E-7	2.63E-5	2.35E-8	-9.66E-5	1.57E-4
EP-m	kg N eq	4.01E-3	3.13E-4	2.63E-4	4.59E-3	1.35E-4	9.03E-4	1.13E-5	-1.77E-3	3.87E-3
EP-T	mol N eq	4.30E-2	3.45E-3	3.11E-3	4.95E-2	1.49E-3	9.96E-3	7.34E-5	-1.91E-2	4.19E-2
POCP	kg NMVOC eq	1.43E-2	9.87E-4	7.78E-4	1.61E-2	4.26E-4	2.98E-3	2.51E-5	-6.49E-3	1.30E-2
ADP-mm	kg Sb eq	2.95E-3	3.98E-6	2.95E-6	2.96E-3	1.72E-6	1.45E-5	1.83E-8	-5.31E-5	2.92E-3
ADP-f	MJ	1.20E+2	2.36E+0	2.31E+0	1.24E+2	1.02E+0	1.01E+1	5.55E-2	-6.31E+1	7.23E+1
WDP	m3 depriv.	7.90E+0	7.24E-3	4.72E+0	1.26E+1	3.12E-3	3.93E-1	3.41E-4	-3.75E+0	9.28E+0
PM	disease inc.	1.73E-7	1.39E-8	1.30E-8	2.00E-7	5.99E-9	4.61E-8	3.81E-10	-6.63E-8	1.87E-7
IR	kBq U-235 eq	2.64E-1	1.03E-2	6.69E-3	2.81E-1	4.45E-3	3.53E-2	2.54E-4	-1.21E-1	2.00E-1
ETP-fw	CTUe	1.06E+2	1.92E+0	2.07E+0	1.10E+2	8.26E-1	7.57E+1	8.35E-1	-3.82E+1	1.49E+2
HTP-c	CTUh	4.01E-9	6.82E-11	1.65E-10	4.24E-9	2.94E-11	1.14E-9	1.48E-12	-1.40E-9	4.01E-9
HTP-nc	CTUh	1.29E-7	2.28E-9	4.18E-9	1.35E-7	9.85E-10	2.67E-8	1.61E-10	-4.83E-8	1.15E-7
SQP	Pt	6.24E+1	2.02E+0	9.46E+0	7.39E+1	8.71E-1	6.29E+0	1.41E-1	-1.64E+1	6.48E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.29E+1	3.39E-2	2.42E+0	1.53E+1	1.46E-2	7.24E-1	2.01E-3	-4.68E+0	1.14E+1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.29E+1	3.39E-2	2.42E+0	1.53E+1	1.46E-2	7.24E-1	2.01E-3	-4.68E+0	1.14E+1
PENRE	MJ	1.28E+2	2.51E+0	2.49E+0	1.33E+2	1.08E+0	1.07E+1	5.89E-2	-6.79E+1	7.72E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.28E+2	2.51E+0	2.49E+0	1.33E+2	1.08E+0	1.07E+1	5.89E-2	-6.79E+1	7.72E+1
PET	MJ	1.41E+2	2.54E+0	4.91E+0	1.49E+2	1.10E+0	1.15E+1	6.09E-2	-7.26E+1	8.86E+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	8.81E-2	2.67E-4	1.11E-1	1.99E-1	1.15E-4	1.08E-2	6.79E-5	-3.92E-2	1.71E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	4.27E-4	6.04E-6	3.46E-6	4.37E-4	2.60E-6	1.63E-5	6.72E-8	-5.22E-5	4.03E-4
NHWD	kg	5.42E-1	1.46E-1	2.53E-2	7.13E-1	6.31E-2	3.78E-1	2.52E-1	-2.03E-1	1.20E+0
RWD	kg	2.31E-4	1.60E-5	7.00E-6	2.54E-4	6.92E-6	3.79E-5	3.62E-7	-1.07E-4	1.92E-4
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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