

Environmental Profile

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

Ecochain v3.5.80



Product: 3025447 - Gutter PVC Pipe Sand 80 L= 2 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	1.81E+0	6.11E-2	8.77E-2	1.96E+0	2.66E-2	8.28E-1	7.85E-3	-1.05E+0	1.78E+0
GWP-f	kg CO2 eq	1.92E+0	6.10E-2	6.91E-2	2.05E+0	2.66E-2	6.99E-1	7.85E-3	-1.04E+0	1.75E+0
GWP-b	kg CO2 eq	-1.13E-1	3.71E-5	1.85E-2	-9.45E-2	1.62E-5	1.29E-1	9.92E-6	-7.30E-3	2.74E-2
GWP-luluc	kg CO2 eq	5.92E-3	2.16E-5	6.54E-5	6.01E-3	9.42E-6	3.16E-4	2.10E-7	-6.92E-4	5.64E-3
ODP	kg CFC11 eq	1.03E-6	1.41E-8	9.00E-9	1.05E-6	6.13E-9	8.51E-8	3.06E-10	-5.21E-7	6.23E-7
AP	mol H+ eq	9.56E-3	3.48E-4	3.89E-4	1.03E-2	1.52E-4	1.47E-3	7.38E-6	-4.00E-3	7.93E-3
EP-fw	kg P eq	8.84E-5	5.02E-7	1.65E-6	9.06E-5	2.19E-7	1.05E-5	9.46E-9	-3.86E-5	6.27E-5
EP-m	kg N eq	1.60E-3	1.24E-4	1.14E-4	1.83E-3	5.42E-5	3.59E-4	4.56E-6	-6.98E-4	1.55E-3
EP-T	mol N eq	1.70E-2	1.37E-3	1.37E-3	1.98E-2	5.98E-4	3.95E-3	2.95E-5	-7.52E-3	1.68E-2
POCP	kg NMVOC eq	5.71E-3	3.92E-4	3.38E-4	6.44E-3	1.71E-4	1.19E-3	1.01E-5	-2.58E-3	5.23E-3
ADP-mm	kg Sb eq	1.22E-3	1.58E-6	1.34E-6	1.22E-3	6.88E-7	5.79E-6	7.36E-9	-2.13E-5	1.20E-3
ADP-f	MJ	4.79E+1	9.37E-1	9.64E-1	4.98E+1	4.09E-1	4.04E+0	2.23E-2	-2.54E+1	2.89E+1
WDP	m3 depriv.	3.16E+0	2.88E-3	1.94E+0	5.11E+0	1.25E-3	1.57E-1	1.39E-4	-1.50E+0	3.76E+0
PM	disease inc.	6.61E-8	5.51E-9	5.67E-9	7.73E-8	2.40E-9	1.84E-8	1.53E-10	-2.60E-8	7.22E-8
IR	kBq U-235 eq	1.05E-1	4.10E-3	2.77E-3	1.12E-1	1.79E-3	1.41E-2	1.02E-4	-4.86E-2	7.93E-2
ETP-fw	CTUe	4.25E+1	7.61E-1	9.12E-1	4.42E+1	3.32E-1	3.02E+1	3.33E-1	-1.50E+1	6.01E+1
HTP-c	CTUh	1.59E-9	2.71E-11	7.04E-11	1.69E-9	1.18E-11	4.52E-10	5.96E-13	-5.57E-10	1.59E-9
HTP-nc	CTUh	5.15E-8	9.07E-10	1.82E-9	5.42E-8	3.95E-10	1.07E-8	6.42E-11	-1.92E-8	4.61E-8
SQP	Pt	1.80E+1	8.02E-1	4.55E+0	2.33E+1	3.49E-1	2.52E+0	5.66E-2	-5.06E+0	2.12E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	4.11E+0	1.34E-2	1.16E+0	5.28E+0	5.86E-3	2.89E-1	8.08E-4	-1.57E+0	4.01E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	4.11E+0	1.34E-2	1.16E+0	5.28E+0	5.86E-3	2.89E-1	8.08E-4	-1.57E+0	4.01E+0
PENRE	MJ	5.14E+1	9.95E-1	1.04E+0	5.34E+1	4.34E-1	4.29E+0	2.36E-2	-2.73E+1	3.09E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	5.14E+1	9.95E-1	1.04E+0	5.34E+1	4.34E-1	4.29E+0	2.36E-2	-2.73E+1	3.09E+1
PET	MJ	5.55E+1	1.01E+0	2.20E+0	5.87E+1	4.40E-1	4.58E+0	2.44E-2	-2.89E+1	3.49E+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	3.53E-2	1.06E-4	4.55E-2	8.09E-2	4.62E-5	4.31E-3	2.72E-5	-1.57E-2	6.96E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.75E-4	2.40E-6	1.42E-6	1.78E-4	1.04E-6	6.51E-6	2.70E-8	-2.09E-5	1.65E-4
NHWD	kg	2.15E-1	5.81E-2	1.04E-2	2.83E-1	2.53E-2	1.50E-1	1.01E-1	-8.08E-2	4.79E-1
RWD	kg	9.17E-5	6.37E-6	2.88E-6	1.01E-4	2.78E-6	1.51E-5	1.45E-7	-4.29E-5	7.61E-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



Ecochain Technologies BV
H.J.E. Wenckebachweg 123, 1096 AM Amsterdam, The Netherlands
<https://www.ecochain.com>
+31 20 3035 777