

Environmental Profile

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

Ecochain v3.5.80



Product: 3026013 - PVC Branch 67°3 GY 100 S/S/SP BC
 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	7.61E-1	2.76E-2	3.39E-2	8.23E-1	1.06E-2	4.49E-1	3.29E-3	-4.49E-1	8.37E-1
GWP-f	kg CO2 eq	8.67E-1	2.75E-2	2.69E-2	9.21E-1	1.06E-2	3.16E-1	3.29E-3	-4.88E-1	7.63E-1
GWP-b	kg CO2 eq	-1.07E-1	1.67E-5	6.97E-3	-9.97E-2	6.44E-6	1.33E-1	4.12E-6	3.98E-2	7.29E-2
GWP-luluc	kg CO2 eq	1.05E-3	9.75E-6	2.31E-5	1.08E-3	3.75E-6	1.31E-4	8.84E-8	-6.37E-4	5.80E-4
ODP	kg CFC11 eq	4.40E-7	6.35E-9	3.49E-9	4.50E-7	2.44E-9	3.60E-8	1.24E-10	-2.27E-7	2.61E-7
AP	mol H+ eq	4.24E-3	1.57E-4	1.42E-4	4.54E-3	6.04E-5	6.25E-4	3.02E-6	-1.97E-3	3.25E-3
EP-fw	kg P eq	4.22E-5	2.27E-7	6.38E-7	4.31E-5	8.73E-8	4.38E-6	3.97E-9	-2.06E-5	2.69E-5
EP-m	kg N eq	7.75E-4	5.61E-5	4.23E-5	8.74E-4	2.16E-5	1.55E-4	1.84E-6	-3.64E-4	6.88E-4
EP-T	mol N eq	8.46E-3	6.19E-4	4.97E-4	9.57E-3	2.38E-4	1.71E-3	1.20E-5	-3.95E-3	7.58E-3
POCP	kg NMVOC eq	2.71E-3	1.77E-4	1.25E-4	3.02E-3	6.81E-5	5.11E-4	4.14E-6	-1.32E-3	2.28E-3
ADP-mm	kg Sb eq	1.08E-3	7.13E-7	4.66E-7	1.08E-3	2.74E-7	2.46E-6	3.04E-9	-9.53E-6	1.07E-3
ADP-f	MJ	2.13E+1	4.23E-1	3.77E-1	2.21E+1	1.63E-1	1.69E+0	9.07E-3	-1.15E+1	1.25E+1
WDP	m3 depriv.	1.36E+0	1.30E-3	7.77E-1	2.14E+0	5.00E-4	6.53E-2	6.42E-5	-7.00E-1	1.50E+0
PM	disease inc.	3.06E-8	2.49E-9	2.10E-9	3.52E-8	9.58E-10	7.80E-9	6.24E-11	-1.66E-8	2.74E-8
IR	kBq U-235 eq	4.90E-2	1.85E-3	1.10E-3	5.19E-2	7.12E-4	5.96E-3	4.16E-5	-2.39E-2	3.48E-2
ETP-fw	CTUe	2.86E+1	3.43E-1	3.31E-1	2.92E+1	1.32E-1	1.27E+1	1.40E-1	-9.80E+0	3.24E+1
HTP-c	CTUh	7.97E-10	1.22E-11	2.67E-11	8.35E-10	4.71E-12	1.95E-10	2.52E-13	-2.99E-10	7.36E-10
HTP-nc	CTUh	2.46E-8	4.09E-10	6.73E-10	2.57E-8	1.58E-10	4.50E-9	2.69E-11	-9.24E-9	2.11E-8
SQP	Pt	1.42E+1	3.62E-1	1.46E+0	1.60E+1	1.39E-1	1.04E+0	2.32E-2	-1.68E+1	3.77E-1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	2.79E+0	6.07E-3	3.72E-1	3.17E+0	2.34E-3	1.20E-1	3.32E-4	-3.06E+0	2.39E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	2.79E+0	6.07E-3	3.72E-1	3.17E+0	2.34E-3	1.20E-1	3.32E-4	-3.06E+0	2.39E-1
PENRE	MJ	2.28E+1	4.49E-1	4.08E-1	2.37E+1	1.73E-1	1.79E+0	9.63E-3	-1.24E+1	1.33E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	2.28E+1	4.49E-1	4.08E-1	2.37E+1	1.73E-1	1.79E+0	9.63E-3	-1.24E+1	1.33E+1
PET	MJ	2.56E+1	4.55E-1	7.80E-1	2.69E+1	1.75E-1	1.91E+0	9.96E-3	-1.54E+1	1.35E+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	1.59E-2	4.78E-5	1.82E-2	3.42E-2	1.84E-5	1.80E-3	1.11E-5	-8.36E-3	2.76E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.52E-4	1.08E-6	5.69E-7	1.53E-4	4.16E-7	2.78E-6	1.11E-8	-1.02E-5	1.46E-4
NHWD	kg	9.67E-2	2.62E-2	4.17E-3	1.27E-1	1.01E-2	6.28E-2	4.03E-2	-4.16E-2	1.99E-1
RWD	kg	4.29E-5	2.88E-6	1.15E-6	4.69E-5	1.11E-6	6.44E-6	5.90E-8	-2.15E-5	3.31E-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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