

Environmental Profile

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

Ecochain v3.5.80



Product: 3026016 - PVC Branch 45° 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	☑	☑	☑	☑									

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	8.51E-1	3.19E-2	3.68E-2	9.20E-1	1.21E-2	5.45E-1	3.76E-3	-5.09E-1	9.71E-1
GWP-f	kg CO2 eq	1.00E+0	3.18E-2	2.95E-2	1.06E+0	1.21E-2	3.58E-1	3.76E-3	-5.65E-1	8.72E-1
GWP-b	kg CO2 eq	-1.51E-1	1.93E-5	7.21E-3	-1.44E-1	7.37E-6	1.86E-1	4.72E-6	5.65E-2	9.87E-2
GWP-luluc	kg CO2 eq	1.27E-3	1.13E-5	2.12E-5	1.31E-3	4.29E-6	1.50E-4	1.01E-7	-8.19E-4	6.41E-4
ODP	kg CFC11 eq	5.05E-7	7.34E-9	3.79E-9	5.16E-7	2.80E-9	4.14E-8	1.42E-10	-2.61E-7	3.00E-7
AP	mol H+ eq	4.91E-3	1.81E-4	1.39E-4	5.23E-3	6.91E-5	7.21E-4	3.46E-6	-2.33E-3	3.69E-3
EP-fw	kg P eq	4.90E-5	2.62E-7	6.93E-7	5.00E-5	9.99E-8	5.02E-6	4.53E-9	-2.47E-5	3.04E-5
EP-m	kg N eq	9.09E-4	6.49E-5	4.26E-5	1.02E-3	2.47E-5	1.79E-4	2.11E-6	-4.35E-4	7.88E-4
EP-T	mol N eq	9.88E-3	7.15E-4	4.79E-4	1.11E-2	2.73E-4	1.98E-3	1.38E-5	-4.73E-3	8.61E-3
POCP	kg NMVOC eq	3.16E-3	2.04E-4	1.26E-4	3.49E-3	7.79E-5	5.91E-4	4.73E-6	-1.57E-3	2.59E-3
ADP-mm	kg Sb eq	1.23E-3	8.24E-7	4.13E-7	1.23E-3	3.14E-7	2.84E-6	3.47E-9	-1.10E-5	1.22E-3
ADP-f	MJ	2.45E+1	4.89E-1	4.17E-1	2.54E+1	1.86E-1	1.94E+0	1.04E-2	-1.33E+1	1.42E+1
WDP	m3 depriv.	1.56E+0	1.50E-3	8.87E-1	2.45E+0	5.72E-4	7.48E-2	7.30E-5	-8.17E-1	1.70E+0
PM	disease inc.	3.63E-8	2.87E-9	2.11E-9	4.13E-8	1.10E-9	9.01E-9	7.14E-11	-2.06E-8	3.09E-8
IR	kBq U-235 eq	5.65E-2	2.14E-3	1.24E-3	5.99E-2	8.14E-4	6.87E-3	4.75E-5	-2.82E-2	3.95E-2
ETP-fw	CTUe	3.40E+1	3.97E-1	3.21E-1	3.47E+1	1.51E-1	1.46E+1	1.60E-1	-1.21E+1	3.75E+1
HTP-c	CTUh	9.26E-10	1.41E-11	2.79E-11	9.68E-10	5.38E-12	2.24E-10	2.88E-13	-3.59E-10	8.39E-10
HTP-nc	CTUh	2.83E-8	4.73E-10	6.75E-10	2.94E-8	1.80E-10	5.16E-9	3.08E-11	-1.09E-8	2.39E-8
SQP	Pt	1.91E+1	4.18E-1	1.04E+0	2.06E+1	1.59E-1	1.20E+0	2.65E-2	-2.33E+1	-1.34E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	3.64E+0	7.01E-3	2.68E-1	3.91E+0	2.67E-3	1.38E-1	3.79E-4	-4.16E+0	-1.07E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	3.64E+0	7.01E-3	2.68E-1	3.91E+0	2.67E-3	1.38E-1	3.79E-4	-4.16E+0	-1.07E-1
PENRE	MJ	2.62E+1	5.19E-1	4.51E-1	2.72E+1	1.98E-1	2.07E+0	1.10E-2	-1.43E+1	1.52E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	2.62E+1	5.19E-1	4.51E-1	2.72E+1	1.98E-1	2.07E+0	1.10E-2	-1.43E+1	1.52E+1
PET	MJ	2.99E+1	5.26E-1	7.19E-1	3.11E+1	2.00E-1	2.20E+0	1.14E-2	-1.85E+1	1.51E+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	1.83E-2	5.53E-5	2.08E-2	3.91E-2	2.11E-5	2.06E-3	1.27E-5	-1.00E-2	3.12E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.73E-4	1.25E-6	6.50E-7	1.75E-4	4.76E-7	3.21E-6	1.27E-8	-1.20E-5	1.66E-4
NHWD	kg	1.13E-1	3.03E-2	4.76E-3	1.48E-1	1.15E-2	7.22E-2	4.61E-2	-4.96E-2	2.29E-1
RWD	kg	4.97E-5	3.32E-6	1.32E-6	5.43E-5	1.27E-6	7.45E-6	6.75E-8	-2.54E-5	3.77E-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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