

Environmental Profile

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

Ecochain v3.5.80



Product: 3026006 - PVC Branch 87°3 GY 160 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	2.48E+0	9.82E-2	1.17E-1	2.70E+0	3.73E-2	1.69E+0	1.15E-2	-1.51E+0	2.92E+0
GWP-f	kg CO2 eq	3.02E+0	9.81E-2	9.34E-2	3.21E+0	3.73E-2	1.02E+0	1.15E-2	-1.71E+0	2.57E+0
GWP-b	kg CO2 eq	-5.41E-1	5.96E-5	2.35E-2	-5.17E-1	2.26E-5	6.65E-1	1.45E-5	2.03E-1	3.51E-1
GWP-luluc	kg CO2 eq	4.04E-3	3.47E-5	7.42E-5	4.15E-3	1.32E-5	4.63E-4	3.09E-7	-2.76E-3	1.86E-3
ODP	kg CFC11 eq	1.56E-6	2.26E-8	1.20E-8	1.59E-6	8.59E-9	1.28E-7	4.37E-10	-8.00E-7	9.30E-7
AP	mol H+ eq	1.49E-2	5.59E-4	4.68E-4	1.59E-2	2.12E-4	2.22E-3	1.06E-5	-7.34E-3	1.10E-2
EP-fw	kg P eq	1.50E-4	8.07E-7	2.20E-6	1.53E-4	3.07E-7	1.55E-5	1.39E-8	-7.91E-5	8.98E-5
EP-m	kg N eq	2.78E-3	2.00E-4	1.41E-4	3.12E-3	7.60E-5	5.53E-4	6.49E-6	-1.38E-3	2.38E-3
EP-T	mol N eq	3.02E-2	2.20E-3	1.63E-3	3.40E-2	8.37E-4	6.09E-3	4.23E-5	-1.50E-2	2.60E-2
POCP	kg NMVOC eq	9.51E-3	6.30E-4	4.18E-4	1.06E-2	2.39E-4	1.82E-3	1.45E-5	-4.96E-3	7.67E-3
ADP-mm	kg Sb eq	3.69E-3	2.54E-6	1.47E-6	3.69E-3	9.64E-7	8.80E-6	1.07E-8	-3.43E-5	3.67E-3
ADP-f	MJ	7.33E+1	1.51E+0	1.31E+0	7.61E+1	5.72E-1	5.99E+0	3.19E-2	-4.04E+1	4.23E+1
WDP	m3 depriv.	4.74E+0	4.62E-3	2.75E+0	7.49E+0	1.76E-3	2.31E-1	2.20E-4	-2.55E+0	5.17E+0
PM	disease inc.	1.11E-7	8.86E-9	7.00E-9	1.27E-7	3.36E-9	2.78E-8	2.19E-10	-6.73E-8	9.13E-8
IR	kBq U-235 eq	1.73E-1	6.58E-3	3.87E-3	1.83E-1	2.50E-3	2.13E-2	1.46E-4	-8.86E-2	1.18E-1
ETP-fw	CTUe	1.07E+2	1.22E+0	1.09E+0	1.09E+2	4.65E-1	4.50E+1	4.94E-1	-3.98E+1	1.15E+2
HTP-c	CTUh	2.85E-9	4.35E-11	9.06E-11	2.99E-9	1.65E-11	6.81E-10	8.82E-13	-1.14E-9	2.54E-9
HTP-nc	CTUh	8.65E-8	1.46E-9	2.24E-9	9.02E-8	5.54E-10	1.59E-8	9.49E-11	-3.42E-8	7.25E-8
SQP	Pt	6.61E+1	1.29E+0	4.24E+0	7.17E+1	4.89E-1	3.69E+0	8.14E-2	-8.25E+1	-6.55E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.23E+1	2.16E-2	1.08E+0	1.34E+1	8.21E-3	4.25E-1	1.17E-3	-1.46E+1	-7.60E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.23E+1	2.16E-2	1.08E+0	1.34E+1	8.21E-3	4.25E-1	1.17E-3	-1.46E+1	-7.60E-1
PENRE	MJ	7.86E+1	1.60E+0	1.42E+0	8.16E+1	6.07E-1	6.37E+0	3.38E-2	-4.35E+1	4.52E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	7.86E+1	1.60E+0	1.42E+0	8.16E+1	6.07E-1	6.37E+0	3.38E-2	-4.35E+1	4.52E+1
PET	MJ	9.09E+1	1.62E+0	2.51E+0	9.50E+1	6.16E-1	6.80E+0	3.50E-2	-5.81E+1	4.44E+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	5.51E-2	1.70E-4	6.43E-2	1.20E-1	6.47E-5	6.35E-3	3.90E-5	-3.19E-2	9.41E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	5.21E-4	3.85E-6	2.01E-6	5.26E-4	1.46E-6	9.90E-6	3.89E-8	-3.66E-5	5.01E-4
NHWD	kg	3.50E-1	9.33E-2	1.47E-2	4.58E-1	3.55E-2	2.19E-1	1.42E-1	-1.58E-1	6.97E-1
RWD	kg	1.52E-4	1.02E-5	4.07E-6	1.66E-4	3.89E-6	2.30E-5	2.07E-7	-8.01E-5	1.13E-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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