

Environmental Profile

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

Ecochain v3.5.80



Product: 3025879 - PVC Branch 45° GY 140 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	1.62E+0	6.16E-2	7.16E-2	1.75E+0	2.33E-2	1.01E+0	7.21E-3	-9.25E-1	1.87E+0
GWP-f	kg CO2 eq	1.90E+0	6.16E-2	5.74E-2	2.02E+0	2.32E-2	6.40E-1	7.20E-3	-1.07E+0	1.61E+0
GWP-b	kg CO2 eq	-2.78E-1	3.74E-5	1.42E-2	-2.64E-1	1.41E-5	3.65E-1	9.06E-6	1.51E-1	2.52E-1
GWP-luluc	kg CO2 eq	2.62E-3	2.18E-5	4.28E-5	2.69E-3	8.23E-6	2.89E-4	1.93E-7	-1.86E-3	1.12E-3
ODP	kg CFC11 eq	9.73E-7	1.42E-8	7.37E-9	9.95E-7	5.36E-9	8.00E-8	2.73E-10	-5.00E-7	5.80E-7
AP	mol H+ eq	9.33E-3	3.51E-4	2.76E-4	9.96E-3	1.32E-4	1.40E-3	6.62E-6	-4.64E-3	6.86E-3
EP-fw	kg P eq	9.46E-5	5.07E-7	1.35E-6	9.65E-5	1.91E-7	9.67E-6	8.68E-9	-5.10E-5	5.53E-5
EP-m	kg N eq	1.76E-3	1.25E-4	8.42E-5	1.97E-3	4.74E-5	3.48E-4	4.05E-6	-8.70E-4	1.50E-3
EP-T	mol N eq	1.90E-2	1.38E-3	9.55E-4	2.14E-2	5.22E-4	3.83E-3	2.64E-5	-9.49E-3	1.63E-2
POCP	kg NMVOC eq	5.95E-3	3.95E-4	2.49E-4	6.59E-3	1.49E-4	1.15E-3	9.07E-6	-3.11E-3	4.79E-3
ADP-mm	kg Sb eq	2.31E-3	1.59E-6	8.38E-7	2.31E-3	6.01E-7	5.53E-6	6.65E-9	-2.14E-5	2.30E-3
ADP-f	MJ	4.59E+1	9.45E-1	8.09E-1	4.76E+1	3.57E-1	3.75E+0	1.99E-2	-2.53E+1	2.64E+1
WDP	m3 depriv.	2.96E+0	2.90E-3	1.71E+0	4.67E+0	1.09E-3	1.44E-1	1.38E-4	-1.63E+0	3.19E+0
PM	disease inc.	7.02E-8	5.56E-9	4.17E-9	7.99E-8	2.10E-9	1.75E-8	1.37E-10	-4.32E-8	5.65E-8
IR	kBq U-235 eq	1.08E-1	4.13E-3	2.40E-3	1.15E-1	1.56E-3	1.33E-2	9.11E-5	-5.64E-2	7.34E-2
ETP-fw	CTUe	6.93E+1	7.67E-1	6.38E-1	7.07E+1	2.90E-1	2.81E+1	3.07E-1	-2.64E+1	7.29E+1
HTP-c	CTUh	1.77E-9	2.73E-11	5.47E-11	1.85E-9	1.03E-11	4.28E-10	5.51E-13	-7.07E-10	1.58E-9
HTP-nc	CTUh	5.41E-8	9.15E-10	1.33E-9	5.64E-8	3.45E-10	9.92E-9	5.92E-11	-2.16E-8	4.51E-8
SQP	Pt	3.72E+1	8.08E-1	2.23E+0	4.03E+1	3.05E-1	2.31E+0	5.08E-2	-5.15E+1	-8.57E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	7.14E+0	1.36E-2	5.71E-1	7.73E+0	5.12E-3	2.66E-1	7.29E-4	-9.25E+0	-1.25E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	7.14E+0	1.36E-2	5.71E-1	7.73E+0	5.12E-3	2.66E-1	7.29E-4	-9.25E+0	-1.25E+0
PENRE	MJ	4.92E+1	1.00E+0	8.75E-1	5.11E+1	3.79E-1	3.99E+0	2.11E-2	-2.72E+1	2.82E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	4.92E+1	1.00E+0	8.75E-1	5.11E+1	3.79E-1	3.99E+0	2.11E-2	-2.72E+1	2.82E+1
PET	MJ	5.63E+1	1.02E+0	1.45E+0	5.88E+1	3.84E-1	4.26E+0	2.18E-2	-3.65E+1	2.70E+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	3.46E-2	1.07E-4	4.01E-2	7.47E-2	4.04E-5	3.96E-3	2.43E-5	-2.07E-2	5.81E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	3.26E-4	2.42E-6	1.25E-6	3.30E-4	9.12E-7	6.22E-6	2.43E-8	-2.28E-5	3.14E-4
NHWD	kg	2.20E-1	5.86E-2	9.18E-3	2.87E-1	2.21E-2	1.37E-1	8.84E-2	-9.79E-2	4.37E-1
RWD	kg	9.53E-5	6.43E-6	2.54E-6	1.04E-4	2.43E-6	1.45E-5	1.29E-7	-5.09E-5	7.04E-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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