

Environmental Profile

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

Ecochain v3.5.80



Product: 3025880 - PVC Branch 87°3 GY 140 S/S/S 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	1.14E+0	4.59E-2	5.30E-2	1.24E+0	1.68E-2	8.33E-1	5.21E-3	-6.60E-1	1.44E+0
GWP-f	kg CO2 eq	1.42E+0	4.59E-2	4.23E-2	1.51E+0	1.68E-2	4.67E-1	5.21E-3	-8.11E-1	1.19E+0
GWP-b	kg CO2 eq	-2.83E-1	2.79E-5	1.07E-2	-2.72E-1	1.02E-5	3.66E-1	6.55E-6	1.52E-1	2.46E-1
GWP-luluc	kg CO2 eq	2.18E-3	1.62E-5	3.42E-5	2.23E-3	5.95E-6	2.11E-4	1.40E-7	-1.69E-3	7.62E-4
ODP	kg CFC11 eq	7.11E-7	1.06E-8	5.45E-9	7.27E-7	3.88E-9	5.85E-8	1.97E-10	-3.66E-7	4.24E-7
AP	mol H+ eq	7.04E-3	2.61E-4	2.14E-4	7.52E-3	9.58E-5	1.03E-3	4.79E-6	-3.63E-3	5.02E-3
EP-fw	kg P eq	7.17E-5	3.78E-7	9.98E-7	7.31E-5	1.38E-7	7.05E-6	6.28E-9	-4.12E-5	3.91E-5
EP-m	kg N eq	1.37E-3	9.35E-5	6.44E-5	1.53E-3	3.43E-5	2.61E-4	2.93E-6	-6.96E-4	1.13E-3
EP-T	mol N eq	1.47E-2	1.03E-3	7.46E-4	1.65E-2	3.78E-4	2.87E-3	1.91E-5	-7.64E-3	1.21E-2
POCP	kg NMVOC eq	4.55E-3	2.95E-4	1.91E-4	5.03E-3	1.08E-4	8.60E-4	6.56E-6	-2.46E-3	3.54E-3
ADP-mm	kg Sb eq	1.67E-3	1.19E-6	6.81E-7	1.67E-3	4.35E-7	4.10E-6	4.81E-9	-1.60E-5	1.66E-3
ADP-f	MJ	3.40E+1	7.04E-1	5.94E-1	3.53E+1	2.58E-1	2.76E+0	1.44E-2	-1.89E+1	1.94E+1
WDP	m3 depriv.	2.16E+0	2.16E-3	1.24E+0	3.40E+0	7.92E-4	1.04E-1	9.99E-5	-1.24E+0	2.26E+0
PM	disease inc.	5.58E-8	4.14E-9	3.20E-9	6.31E-8	1.52E-9	1.30E-8	9.90E-11	-3.68E-8	4.10E-8
IR	kBq U-235 eq	8.09E-2	3.08E-3	1.74E-3	8.57E-2	1.13E-3	9.84E-3	6.59E-5	-4.40E-2	5.28E-2
ETP-fw	CTUe	5.58E+1	5.72E-1	4.98E-1	5.69E+1	2.10E-1	2.04E+1	2.22E-1	-2.27E+1	5.50E+1
HTP-c	CTUh	1.33E-9	2.04E-11	4.12E-11	1.40E-9	7.46E-12	3.17E-10	3.98E-13	-5.66E-10	1.16E-9
HTP-nc	CTUh	4.00E-8	6.82E-10	1.02E-9	4.17E-8	2.50E-10	7.25E-9	4.28E-11	-1.67E-8	3.25E-8
SQP	Pt	3.56E+1	6.03E-1	2.00E+0	3.82E+1	2.21E-1	1.70E+0	3.67E-2	-5.08E+1	-1.07E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	6.52E+0	1.01E-2	5.11E-1	7.05E+0	3.70E-3	1.94E-1	5.27E-4	-8.97E+0	-1.72E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	6.52E+0	1.01E-2	5.11E-1	7.05E+0	3.70E-3	1.94E-1	5.27E-4	-8.97E+0	-1.72E+0
PENRE	MJ	3.64E+1	7.48E-1	6.42E-1	3.78E+1	2.74E-1	2.94E+0	1.53E-2	-2.03E+1	2.08E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	3.64E+1	7.48E-1	6.42E-1	3.78E+1	2.74E-1	2.94E+0	1.53E-2	-2.03E+1	2.08E+1
PET	MJ	4.30E+1	7.58E-1	1.15E+0	4.49E+1	2.78E-1	3.13E+0	1.58E-2	-2.93E+1	1.90E+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	2.56E-2	7.97E-5	2.90E-2	5.47E-2	2.92E-5	2.88E-3	1.76E-5	-1.67E-2	4.09E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	2.37E-4	1.80E-6	9.06E-7	2.40E-4	6.60E-7	4.62E-6	1.76E-8	-1.75E-5	2.28E-4
NHWD	kg	1.70E-1	4.37E-2	6.64E-3	2.20E-1	1.60E-2	1.01E-1	6.40E-2	-7.74E-2	3.24E-1
RWD	kg	7.18E-5	4.79E-6	1.83E-6	7.84E-5	1.76E-6	1.08E-5	9.36E-8	-4.00E-5	5.10E-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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