

Environmental Profile

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

Ecochain v3.5.80



Product: 3040443 - EVAC Pipe GY 40x3 NFE+NFME L=4 PL
 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	1.08E+0	1.51E-1	1.54E-1	1.39E+0	4.89E-2	1.81E+0	1.50E-2	-4.44E-1	2.81E+0
GWP-f	kg CO2 eq	1.50E+0	1.51E-1	1.23E-1	1.77E+0	4.89E-2	1.29E+0	1.50E-2	-4.43E-1	2.68E+0
GWP-b	kg CO2 eq	-4.84E-1	6.91E-5	3.13E-2	-4.53E-1	2.97E-5	5.16E-1	1.81E-5	-8.71E-4	6.18E-2
GWP-luluc	kg CO2 eq	6.74E-2	6.18E-5	1.00E-4	6.76E-2	1.73E-5	5.64E-4	4.27E-7	-1.57E-4	6.80E-2
ODP	kg CFC11 eq	5.17E-7	3.40E-8	1.59E-8	5.67E-7	1.13E-8	1.50E-7	5.67E-10	-9.06E-8	6.38E-7
AP	mol H+ eq	7.96E-3	1.52E-3	6.27E-4	1.01E-2	2.78E-4	2.66E-3	1.38E-5	-8.93E-4	1.22E-2
EP-fw	kg P eq	8.52E-5	1.14E-6	2.90E-6	8.92E-5	4.02E-7	1.87E-5	1.87E-8	-5.33E-6	1.03E-4
EP-m	kg N eq	1.60E-3	4.55E-4	1.88E-4	2.25E-3	9.96E-5	6.57E-4	8.08E-6	-2.19E-4	2.79E-3
EP-T	mol N eq	1.56E-2	5.03E-3	2.19E-3	2.28E-2	1.10E-3	7.24E-3	5.49E-5	-2.72E-3	2.85E-2
POCP	kg NMVOC eq	4.79E-3	1.38E-3	5.58E-4	6.73E-3	3.14E-4	2.17E-3	1.89E-5	-7.44E-4	8.49E-3
ADP-mm	kg Sb eq	9.61E-4	3.45E-6	2.00E-6	9.66E-4	1.26E-6	1.04E-5	1.41E-8	-2.47E-6	9.75E-4
ADP-f	MJ	3.59E+1	2.25E+0	1.73E+0	3.99E+1	7.50E-1	7.29E+0	4.14E-2	-8.19E+0	3.98E+1
WDP	m3 depriv.	1.70E+0	6.41E-3	3.59E+0	5.30E+0	2.30E-3	2.77E-1	3.93E-4	-1.74E-1	5.41E+0
PM	disease inc.	8.41E-8	1.22E-8	9.34E-9	1.06E-7	4.41E-9	3.35E-8	2.84E-10	-7.55E-9	1.36E-7
IR	kBq U-235 eq	1.08E-1	9.82E-3	5.07E-3	1.23E-1	3.28E-3	2.53E-2	1.87E-4	-7.27E-3	1.44E-1
ETP-fw	CTUe	3.96E+1	1.78E+0	1.46E+0	4.28E+1	6.09E-1	5.26E+1	5.79E-1	-4.20E+0	9.25E+1
HTP-c	CTUh	1.34E-9	7.00E-11	1.20E-10	1.53E-9	2.17E-11	9.19E-10	1.20E-12	-1.12E-10	2.36E-9
HTP-nc	CTUh	3.47E-8	2.04E-9	2.99E-9	3.98E-8	7.26E-10	1.92E-8	1.13E-10	-3.23E-9	5.66E-8
SQP	Pt	5.70E+1	1.70E+0	5.94E+0	6.47E+1	6.42E-1	4.60E+0	1.05E-1	-1.05E+1	5.96E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	9.88E+0	2.99E-2	1.52E+0	1.14E+1	1.08E-2	5.15E-1	1.44E-3	-2.15E+0	9.81E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	9.88E+0	2.99E-2	1.52E+0	1.14E+1	1.08E-2	5.15E-1	1.44E-3	-2.15E+0	9.81E+0
PENRE	MJ	3.85E+1	2.39E+0	1.87E+0	4.28E+1	7.96E-1	7.75E+0	4.39E-2	-9.00E+0	4.24E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	3.85E+1	2.39E+0	1.87E+0	4.28E+1	7.96E-1	7.75E+0	4.39E-2	-9.00E+0	4.24E+1
PET	MJ	4.84E+1	2.42E+0	3.39E+0	5.42E+1	8.07E-1	8.27E+0	4.54E-2	-1.11E+1	5.22E+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	2.58E-2	2.36E-4	8.42E-2	1.10E-1	8.49E-5	7.64E-3	5.00E-5	-2.10E-3	1.16E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.46E-4	5.24E-6	2.63E-6	1.54E-4	1.92E-6	1.18E-5	5.14E-8	-9.11E-6	1.58E-4
NHWD	kg	2.16E-1	1.21E-1	1.93E-2	3.56E-1	4.65E-2	2.80E-1	1.86E-1	-1.48E-2	8.53E-1
RWD	kg	9.47E-5	1.54E-5	5.33E-6	1.15E-4	5.10E-6	2.74E-5	2.68E-7	-7.38E-6	1.41E-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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