Environmental Profile

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

Ecochain v3.5.80

Product:	3040448 - EVAC Pipe GY 125x3,2 NFE+NFME L=4 SG/CH
Unit:	1 Piece
Manufacturer:	Wavin - FR - Varennes

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.

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

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]

Statement of Confidentiality

Results

Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	7.79E+0	2.87E-1	3.82E-1	8.46E+0	1.24E-1	4.05E+0	3.51E-2	-4.69E+0	7.99E+0
GWP-f	kg CO2 eq	8.58E+0	2.87E-1	3.06E-1	9.17E+0	1.24E-1	3.16E+0	3.51E-2	-4.65E+0	7.84E+0
GWP-b	kg CO2 eq	-8.63E-1	1.74E-4	7.57E-2	-7.87E-1	7.53E-5	8.92E-1	4.47E-5	-3.27E-2	7.28E-2
GWP-luluc	kg CO2 eq	7.58E-2	1.02E-4	2.29E-4	7.61E-2	4.39E-5	1.45E-3	9.50E-7	-3.15E-3	7.44E-2
ODP	kg CFC11 eq	4.63E-6	6.61E-8	3.94E-8	4.74E-6	2.86E-8	3.87E-7	1.41E-9	-2.34E-6	2.82E-6
AP	mol H+ eq	4.13E-2	1.63E-3	1.48E-3	4.44E-2	7.07E-4	6.77E-3	3.38E-5	-1.81E-2	3.39E-2
EP-fw	kg P eq	3.99E-4	2.36E-6	7.20E-6	4.08E-4	1.02E-6	4.80E-5	4.28E-8	-1.73E-4	2.84E-4
EP-m	kg N eq	7.37E-3	5.85E-4	4.50E-4	8.40E-3	2.53E-4	1.66E-3	2.08E-5	-3.17E-3	7.17E-3
EP-T	mol N eq	7.69E-2	6.45E-3	5.11E-3	8.85E-2	2.79E-3	1.83E-2	1.35E-4	-3.43E-2	7.54E-2
POCP	kg NMVOC eq	2.56E-2	1.84E-3	1.33E-3	2.88E-2	7.96E-4	5.49E-3	4.60E-5	-1.17E-2	2.34E-2
ADP-mm	kg Sb eq	5.26E-3	7.42E-6	4.49E-6	5.27E-3	3.21E-6	2.66E-5	3.36E-8	-9.53E-5	5.21E-3
ADP-f	MJ	2.15E+2	4.40E+0	4.32E+0	2.23E+2	1.90E+0	1.86E+1	1.02E-1	-1.13E+2	1.31E+2
WDP	m3 depriv.	1.41E+1	1.35E-2	9.13E+0	2.32E+1	5.84E-3	7.16E-1	6.10E-4	-6.73E+0	1.72E+1
PM	disease inc.	3.08E-7	2.59E-8	2.23E-8	3.56E-7	1.12E-8	8.53E-8	7.00E-10	-1.19E-7	3.35E-7
IR	kBq U-235 eq	4.71E-1	1.93E-2	1.28E-2	5.03E-1	8.32E-3	6.49E-2	4.68E-4	-2.18E-1	3.59E-1
ETP-fw	CTUe	1.90E+2	3.58E+0	3.42E+0	1.97E+2	1.55E+0	1.36E+2	1.50E+0	-6.86E+1	2.68E+2
HTP-c	CTUh	6.90E-9	1.27E-10	2.93E-10	7.32E-9	5.50E-11	2.09E-9	2.68E-12	-2.51E-9	6.95E-9
HTP-nc	CTUh	2.26E-7	4.26E-9	7.14E-9	2.37E-7	1.84E-9	4.87E-8	2.89E-10	-8.66E-8	2.01E-7
SQP	Pt	1.11E+2	3.77E+0	1.20E+1	1.27E+2	1.63E+0	1.17E+1	2.59E-1	-2.87E+1	1.11E+2
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	2.30E+1	6.32E-2	3.08E+0	2.61E+1	2.73E-2	1.32E+0	3.66E-3	-8.26E+0	1.92E+1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	2.30E+1	6.32E-2	3.08E+0	2.61E+1	2.73E-2	1.32E+0	3.66E-3	-8.26E+0	1.92E+1
PENRE	MJ	2.30E+2	4.68E+0	4.67E+0	2.40E+2	2.02E+0	1.98E+1	1.08E-1	-1.22E+2	1.40E+2
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	2.30E+2	4.68E+0	4.67E+0	2.40E+2	2.02E+0	1.98E+1	1.08E-1	-1.22E+2	1.40E+2
PET	MJ	2.53E+2	4.74E+0	7.75E+0	2.66E+2	2.05E+0	2.11E+1	1.12E-1	-1.30E+2	1.59E+2
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	1.56E-1	4.98E-4	2.14E-1	3.70E-1	2.15E-4	1.96E-2	1.25E-4	-7.06E-2	3.19E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	7.70E-4	1.13E-5	6.69E-6	7.88E-4	4.87E-6	3.00E-5	1.23E-7	-9.38E-5	7.29E-4
NHWD	kg	9.03E-1	2.73E-1	4.89E-2	1.22E+0	1.18E-1	7.01E-1	4.72E-1	-3.64E-1	2.15E+0
RWD	kg	4.12E-4	3.00E-5	1.35E-5	4.56E-4	1.29E-5	6.99E-5	6.67E-7	-1.93E-4	3.47E-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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