Environmental Profile

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

Ecochain v3.5.80

Ecochain

Product:	3066083 - EVAC Pipe GY 32x3 NFE+NFME L=1 PL
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

WAVIN
An Orbia business.

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	-3.36E-3	3.32E-2	3.31E-2	6.30E-2	1.01E-2	6.47E-1	3.11E-3	-9.83E-2	6.25E-1
GWP-f	kg CO2 eq	3.55E-1	3.32E-2	2.61E-2	4.14E-1	1.01E-2	2.69E-1	3.11E-3	-9.81E-2	5.98E-1
GWP-b	kg CO2 eq	-3.72E-1	1.54E-5	6.96E-3	-3.65E-1	6.14E-6	3.78E-1	3.75E-6	-1.89E-4	1.28E-2
GWP-luluc	kg CO2 eq	1.43E-2	1.35E-5	2.44E-5	1.44E-2	3.58E-6	1.17E-4	8.85E-8	-7.22E-5	1.44E-2
ODP	kg CFC11 eq	1.12E-7	7.49E-9	3.40E-9	1.23E-7	2.33E-9	3.12E-8	1.17E-10	-2.01E-8	1.37E-7
AP	mol H+ eq	2.00E-3	3.28E-4	1.46E-4	2.48E-3	5.76E-5	5.75E-4	2.86E-6	-3.14E-4	2.80E-3
EP-fw	kg P eq	2.00E-5	2.52E-7	6.22E-7	2.09E-5	8.32E-8	3.88E-6	3.88E-9	-1.56E-6	2.33E-5
EP-m	kg N eq	4.26E-4	9.84E-5	4.28E-5	5.67E-4	2.06E-5	1.47E-4	1.67E-6	-8.22E-5	6.54E-4
EP-T	mol N eq	4.39E-3	1.09E-3	5.13E-4	5.99E-3	2.27E-4	1.63E-3	1.14E-5	-1.15E-3	6.71E-3
POCP	kg NMVOC eq	1.30E-3	2.99E-4	1.27E-4	1.73E-3	6.49E-5	4.83E-4	3.91E-6	-2.62E-4	2.02E-3
ADP-mm	kg Sb eq	2.03E-4	7.63E-7	4.98E-7	2.04E-4	2.61E-7	2.18E-6	2.93E-9	-6.07E-7	2.06E-4
ADP-f	MJ	8.14E+0	4.96E-1	3.65E-1	9.00E+0	1.55E-1	1.53E+0	8.57E-3	-1.80E+0	8.89E+0
WDP	m3 depriv.	3.75E-1	1.42E-3	7.39E-1	1.11E+0	4.76E-4	5.75E-2	8.17E-5	-3.87E-2	1.13E+0
PM	disease inc.	3.16E-8	2.69E-9	2.13E-9	3.65E-8	9.12E-10	7.19E-9	5.88E-11	-3.74E-9	4.09E-8
IR	kBq U-235 eq	2.54E-2	2.16E-3	1.05E-3	2.86E-2	6.78E-4	5.34E-3	3.88E-5	-1.85E-3	3.28E-2
ETP-fw	CTUe	9.62E+0	3.92E-1	3.41E-1	1.04E+1	1.26E-1	1.09E+1	1.19E-1	-1.99E+0	1.95E+1
HTP-c	CTUh	3.88E-10	1.54E-11	2.65E-11	4.30E-10	4.48E-12	2.09E-10	2.49E-13	-4.06E-11	6.03E-10
HTP-nc	CTUh	8.37E-9	4.50E-10	6.83E-10	9.51E-9	1.50E-10	4.04E-9	2.34E-11	-1.16E-9	1.26E-8
SQP	Pt	3.66E+1	3.77E-1	1.67E+0	3.86E+1	1.33E-1	9.69E-1	2.17E-2	-7.44E+0	3.23E+1

Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	5.76E+0	6.61E-3	4.25E-1	6.19E+0	2.23E-3	1.07E-1	2.97E-4	-1.51E+0	4.79E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	5.76E+0	6.61E-3	4.25E-1	6.19E+0	2.23E-3	1.07E-1	2.97E-4	-1.51E+0	4.79E+0
PENRE	MJ	8.72E+0	5.27E-1	3.95E-1	9.64E+0	1.65E-1	1.63E+0	9.09E-3	-1.97E+0	9.46E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	8.72E+0	5.27E-1	3.95E-1	9.64E+0	1.65E-1	1.63E+0	9.09E-3	-1.97E+0	9.46E+0
PET	MJ	1.45E+1	5.33E-1	8.20E-1	1.58E+1	1.67E-1	1.74E+0	9.39E-3	-3.48E+0	1.43E+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	6.00E-3	5.21E-5	1.73E-2	2.34E-2	1.76E-5	1.61E-3	1.04E-5	-4.96E-4	2.45E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	3.26E-5	1.16E-6	5.41E-7	3.43E-5	3.97E-7	2.51E-6	1.06E-8	-2.11E-6	3.51E-5
NHWD	kg	5.81E-2	2.68E-2	3.96E-3	8.89E-2	9.62E-3	6.32E-2	3.84E-2	-5.38E-3	1.95E-1
RWD	kg	2.29E-5	3.38E-6	1.09E-6	2.74E-5	1.06E-6	5.81E-6	5.54E-8	-1.94E-6	3.24E-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