Environmental Profile

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

Ecochain v3.5.80

Ecochain

Product:	3040037 - EVAC Pipe GY 75x3 NFE+NFME L=4 SG/CH	LCA standard:	EN15804+A2 (2019)	
Unit:	1 Piece	Standard database:	Worldwide - Ecoinvent v 3.6 Cut-Off	
Manufacturer:	Wavin - FR - Varennes	Externally verified:	Yes	

WAVIN
An Orbia business.

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.

Issue date:	24-11-2022
End of validity:	24-11-2027
Verifier:	Martijn van Hövell - SGS Search

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

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Results

Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	4.83E+0	1.73E-1	2.46E-1	5.25E+0	7.53E-2	2.34E+0	2.13E-2	-2.84E+0	4.84E+0
GWP-f	kg CO2 eq	5.18E+0	1.73E-1	1.95E-1	5.55E+0	7.53E-2	1.92E+0	2.13E-2	-2.82E+0	4.74E+0
GWP-b	kg CO2 eq	-4.08E-1	1.05E-4	5.13E-2	-3.57E-1	4.57E-5	4.19E-1	2.71E-5	-1.98E-2	4.22E-2
GWP-luluc	kg CO2 eq	5.38E-2	6.14E-5	1.77E-4	5.41E-2	2.66E-5	8.76E-4	5.78E-7	-1.89E-3	5.31E-2
ODP	kg CFC11 eq	2.80E-6	3.99E-8	2.53E-8	2.86E-6	1.73E-8	2.34E-7	8.56E-10	-1.41E-6	1.70E-6
AP	mol H+ eq	2.50E-2	9.87E-4	1.06E-3	2.71E-2	4.29E-4	4.09E-3	2.05E-5	-1.09E-2	2.07E-2
EP-fw	kg P eq	2.42E-4	1.43E-6	4.63E-6	2.48E-4	6.19E-7	2.91E-5	2.60E-8	-1.05E-4	1.73E-4
EP-m	kg N eq	4.46E-3	3.53E-4	3.14E-4	5.13E-3	1.53E-4	1.00E-3	1.26E-5	-1.90E-3	4.39E-3
EP-T	mol N eq	4.63E-2	3.89E-3	3.74E-3	5.39E-2	1.69E-3	1.10E-2	8.20E-5	-2.05E-2	4.62E-2
POCP	kg NMVOC eq	1.54E-2	1.11E-3	9.31E-4	1.75E-2	4.83E-4	3.31E-3	2.79E-5	-7.02E-3	1.43E-2
ADP-mm	kg Sb eq	3.33E-3	4.48E-6	3.59E-6	3.34E-3	1.95E-6	1.61E-5	2.04E-8	-5.77E-5	3.30E-3
ADP-f	MJ	1.30E+2	2.66E+0	2.72E+0	1.35E+2	1.16E+0	1.13E+1	6.20E-2	-6.87E+1	7.88E+1
WDP	m3 depriv.	8.52E+0	8.17E-3	5.54E+0	1.41E+1	3.55E-3	4.33E-1	3.76E-4	-4.08E+0	1.04E+1
PM	disease inc.	1.81E-7	1.56E-8	1.56E-8	2.12E-7	6.80E-9	5.16E-8	4.25E-10	-7.11E-8	2.00E-7
IR	kBq U-235 eq	2.84E-1	1.16E-2	7.86E-3	3.04E-1	5.05E-3	3.92E-2	2.84E-4	-1.32E-1	2.16E-1
ETP-fw	CTUe	1.16E+2	2.16E+0	2.49E+0	1.20E+2	9.38E-1	8.25E+1	9.07E-1	-4.11E+1	1.64E+2
HTP-c	CTUh	4.18E-9	7.69E-11	1.96E-10	4.45E-9	3.34E-11	1.26E-9	1.63E-12	-1.51E-9	4.23E-9
HTP-nc	CTUh	1.38E-7	2.58E-9	5.01E-9	1.46E-7	1.12E-9	2.94E-8	1.75E-10	-5.23E-8	1.24E-7
SQP	Pt	5.66E+1	2.28E+0	1.18E+1	7.07E+1	9.89E-1	7.09E+0	1.57E-1	-1.51E+1	6.39E+1

Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.23E+1	3.82E-2	3.00E+0	1.54E+1	1.66E-2	8.01E-1	2.22E-3	-4.54E+0	1.17E+1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.23E+1	3.82E-2	3.00E+0	1.54E+1	1.66E-2	8.01E-1	2.22E-3	-4.54E+0	1.17E+1
PENRE	MJ	1.39E+2	2.82E+0	2.94E+0	1.45E+2	1.23E+0	1.20E+1	6.58E-2	-7.40E+1	8.42E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.39E+2	2.82E+0	2.94E+0	1.45E+2	1.23E+0	1.20E+1	6.58E-2	-7.40E+1	8.42E+1
PET	MJ	1.51E+2	2.86E+0	5.95E+0	1.60E+2	1.24E+0	1.28E+1	6.80E-2	-7.85E+1	9.59E+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	9.43E-2	3.01E-4	1.30E-1	2.24E-1	1.31E-4	1.19E-2	7.59E-5	-4.28E-2	1.94E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	4.79E-4	6.80E-6	4.06E-6	4.90E-4	2.96E-6	1.82E-5	7.49E-8	-5.67E-5	4.54E-4
NHWD	kg	5.45E-1	1.65E-1	2.97E-2	7.39E-1	7.16E-2	4.23E-1	2.86E-1	-2.20E-1	1.30E+0
RWD	kg	2.48E-4	1.81E-5	8.21E-6	2.75E-4	7.86E-6	4.23E-5	4.05E-7	-1.17E-4	2.09E-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