Environmental Profile

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

Ecochain v3.5.80

Product:	3040038 - EVAC Pipe GY 63x3 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	4.02E+0	1.47E-1	2.06E-1	4.37E+0	6.35E-2	2.03E+0	1.80E-2	-2.39E+0	4.09E+0
GWP-f	kg CO2 eq	4.38E+0	1.47E-1	1.63E-1	4.69E+0	6.35E-2	1.62E+0	1.80E-2	-2.38E+0	4.01E+0
GWP-b	kg CO2 eq	-4.06E-1	8.92E-5	4.29E-2	-3.63E-1	3.85E-5	4.16E-1	2.28E-5	-1.67E-2	3.60E-2
GWP-luluc	kg CO2 eq	4.49E-2	5.20E-5	1.46E-4	4.51E-2	2.25E-5	7.39E-4	4.88E-7	-1.60E-3	4.42E-2
ODP	kg CFC11 eq	2.36E-6	3.39E-8	2.12E-8	2.41E-6	1.46E-8	1.97E-7	7.21E-10	-1.19E-6	1.43E-6
AP	mol H+ eq	2.12E-2	8.37E-4	8.86E-4	2.29E-2	3.62E-4	3.45E-3	1.73E-5	-9.21E-3	1.75E-2
EP-fw	kg P eq	2.04E-4	1.21E-6	3.88E-6	2.09E-4	5.22E-7	2.45E-5	2.19E-8	-8.86E-5	1.46E-4
EP-m	kg N eq	3.78E-3	3.00E-4	2.62E-4	4.35E-3	1.29E-4	8.46E-4	1.06E-5	-1.61E-3	3.72E-3
EP-T	mol N eq	3.93E-2	3.30E-3	3.11E-3	4.57E-2	1.43E-3	9.33E-3	6.91E-5	-1.74E-2	3.91E-2
POCP	kg NMVOC eq	1.31E-2	9.44E-4	7.76E-4	1.48E-2	4.07E-4	2.80E-3	2.35E-5	-5.94E-3	1.21E-2
ADP-mm	kg Sb eq	2.81E-3	3.80E-6	2.97E-6	2.82E-3	1.64E-6	1.36E-5	1.72E-8	-4.87E-5	2.78E-3
ADP-f	MJ	1.09E+2	2.26E+0	2.28E+0	1.14E+2	9.74E-1	9.50E+0	5.23E-2	-5.79E+1	6.66E+1
WDP	m3 depriv.	7.19E+0	6.92E-3	4.67E+0	1.19E+1	2.99E-3	3.65E-1	3.18E-4	-3.44E+0	8.79E+0
PM	disease inc.	1.56E-7	1.33E-8	1.30E-8	1.82E-7	5.73E-9	4.35E-8	3.58E-10	-6.04E-8	1.71E-7
IR	kBq U-235 eq	2.40E-1	9.86E-3	6.62E-3	2.57E-1	4.26E-3	3.31E-2	2.39E-4	-1.11E-1	1.83E-1
ETP-fw	CTUe	9.80E+1	1.83E+0	2.07E+0	1.02E+2	7.91E-1	6.95E+1	7.64E-1	-3.49E+1	1.38E+2
HTP-c	CTUh	3.56E-9	6.52E-11	1.64E-10	3.79E-9	2.82E-11	1.07E-9	1.37E-12	-1.28E-9	3.60E-9
HTP-nc	CTUh	1.17E-7	2.18E-9	4.18E-9	1.23E-7	9.43E-10	2.48E-8	1.47E-10	-4.42E-8	1.05E-7
SQP	Pt	5.34E+1	1.93E+0	9.64E+0	6.50E+1	8.33E-1	5.98E+0	1.32E-1	-1.39E+1	5.80E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.12E+1	3.24E-2	2.46E+0	1.37E+1	1.40E-2	6.75E-1	1.87E-3	-4.07E+0	1.04E+1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.12E+1	3.24E-2	2.46E+0	1.37E+1	1.40E-2	6.75E-1	1.87E-3	-4.07E+0	1.04E+1
PENRE	MJ	1.17E+2	2.39E+0	2.47E+0	1.22E+2	1.03E+0	1.01E+1	5.55E-2	-6.24E+1	7.11E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.17E+2	2.39E+0	2.47E+0	1.22E+2	1.03E+0	1.01E+1	5.55E-2	-6.24E+1	7.11E+1
PET	MJ	1.29E+2	2.43E+0	4.93E+0	1.36E+2	1.05E+0	1.08E+1	5.73E-2	-6.65E+1	8.15E+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	7.97E-2	2.55E-4	1.09E-1	1.89E-1	1.10E-4	1.00E-2	6.39E-5	-3.61E-2	1.63E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	4.05E-4	5.77E-6	3.42E-6	4.15E-4	2.49E-6	1.53E-5	6.32E-8	-4.79E-5	3.85E-4
NHWD	kg	4.64E-1	1.40E-1	2.50E-2	6.29E-1	6.04E-2	3.58E-1	2.41E-1	-1.86E-1	1.10E+0
RWD	kg	2.10E-4	1.53E-5	6.91E-6	2.32E-4	6.63E-6	3.57E-5	3.41E-7	-9.83E-5	1.77E-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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