Environmental Profile

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

Ecochain v3.5.80

Product:	3025477 - PVC TAD Pipe GY 100 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	4.97E+0	1.79E-1	2.79E-1	5.43E+0	8.66E-2	2.65E+0	2.31E-2	-2.89E+0	5.30E+0
GWP-f	kg CO2 eq	5.42E+0	1.79E-1	2.23E-1	5.82E+0	8.66E-2	2.13E+0	2.31E-2	-2.87E+0	5.19E+0
GWP-b	kg CO2 eq	-4.90E-1	1.09E-4	5.57E-2	-4.34E-1	5.26E-5	5.22E-1	2.97E-5	-1.99E-2	6.80E-2
GWP-luluc	kg CO2 eq	4.30E-2	6.34E-5	1.72E-4	4.32E-2	3.06E-5	9.84E-4	6.31E-7	-1.91E-3	4.23E-2
ODP	kg CFC11 eq	2.89E-6	4.13E-8	2.87E-8	2.96E-6	2.00E-8	2.59E-7	9.66E-10	-1.42E-6	1.83E-6
AP	mol H+ eq	2.59E-2	1.02E-3	1.10E-3	2.80E-2	4.93E-4	4.61E-3	2.30E-5	-1.10E-2	2.21E-2
EP-fw	kg P eq	2.48E-4	1.48E-6	5.25E-6	2.55E-4	7.12E-7	3.25E-5	2.84E-8	-1.05E-4	1.83E-4
EP-m	kg N eq	4.57E-3	3.65E-4	3.33E-4	5.27E-3	1.76E-4	1.13E-3	1.41E-5	-1.93E-3	4.66E-3
EP-T	mol N eq	4.75E-2	4.03E-3	3.81E-3	5.53E-2	1.94E-3	1.25E-2	9.20E-5	-2.09E-2	4.89E-2
POCP	kg NMVOC eq	1.60E-2	1.15E-3	9.85E-4	1.81E-2	5.56E-4	3.76E-3	3.11E-5	-7.12E-3	1.54E-2
ADP-mm	kg Sb eq	1.84E-3	4.64E-6	3.40E-6	1.84E-3	2.24E-6	1.82E-5	2.27E-8	-5.77E-5	1.81E-3
ADP-f	MJ	1.35E+2	2.75E+0	3.14E+0	1.41E+2	1.33E+0	1.28E+1	6.97E-2	-6.96E+1	8.59E+1
WDP	m3 depriv.	8.78E+0	8.44E-3	6.60E+0	1.54E+1	4.08E-3	4.82E-1	3.75E-4	-4.08E+0	1.18E+1
PM	disease inc.	1.94E-7	1.62E-8	1.65E-8	2.26E-7	7.82E-9	5.87E-8	4.77E-10	-7.22E-8	2.21E-7
IR	kBq U-235 eq	2.94E-1	1.20E-2	9.29E-3	3.16E-1	5.81E-3	4.43E-2	3.20E-4	-1.33E-1	2.33E-1
ETP-fw	CTUe	1.06E+2	2.23E+0	2.54E+0	1.11E+2	1.08E+0	9.09E+1	9.96E-1	-4.18E+1	1.62E+2
HTP-c	CTUh	4.05E-9	7.95E-11	2.15E-10	4.35E-9	3.84E-11	1.40E-9	1.77E-12	-1.52E-9	4.27E-9
HTP-nc	CTUh	1.34E-7	2.66E-9	5.28E-9	1.42E-7	1.29E-9	3.28E-8	1.92E-10	-5.25E-8	1.24E-7
SQP	Pt	6.57E+1	2.35E+0	9.44E+0	7.75E+1	1.14E+0	8.11E+0	1.76E-1	-1.70E+1	6.99E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.38E+1	3.95E-2	2.42E+0	1.63E+1	1.91E-2	8.98E-1	2.47E-3	-4.93E+0	1.23E+1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.38E+1	3.95E-2	2.42E+0	1.63E+1	1.91E-2	8.98E-1	2.47E-3	-4.93E+0	1.23E+1
PENRE	MJ	1.45E+2	2.92E+0	3.40E+0	1.52E+2	1.41E+0	1.36E+1	7.40E-2	-7.50E+1	9.18E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.45E+2	2.92E+0	3.40E+0	1.52E+2	1.41E+0	1.36E+1	7.40E-2	-7.50E+1	9.18E+1
PET	MJ	1.59E+2	2.96E+0	5.81E+0	1.68E+2	1.43E+0	1.45E+1	7.65E-2	-7.99E+1	1.04E+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	9.68E-2	3.11E-4	1.55E-1	2.52E-1	1.50E-4	1.32E-2	8.54E-5	-4.30E-2	2.22E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	2.90E-4	7.04E-6	4.84E-6	3.02E-4	3.40E-6	2.05E-5	8.37E-8	-5.77E-5	2.68E-4
NHWD	kg	5.68E-1	1.71E-1	3.54E-2	7.74E-1	8.24E-2	4.84E-1	3.29E-1	-2.21E-1	1.45E+0
RWD	kg	2.58E-4	1.87E-5	9.79E-6	2.86E-4	9.04E-6	4.80E-5	4.57E-7	-1.17E-4	2.27E-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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