Environmental Profile

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

Ecochain v3.5.80

Product:	3025483 - PVC TAD Pipe GY 40 L=4 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

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	1.14E+0	1.42E-1	1.46E-1	1.43E+0	4.63E-2	1.57E+0	1.42E-2	-4.18E-1	2.64E+0
GWP-f	kg CO2 eq	1.40E+0	1.42E-1	1.16E-1	1.65E+0	4.62E-2	1.22E+0	1.42E-2	-4.17E-1	2.52E+0
GWP-b	kg CO2 eq	-3.18E-1	6.48E-5	2.96E-2	-2.89E-1	2.81E-5	3.48E-1	1.72E-5	-8.31E-4	5.84E-2
GWP-luluc	kg CO2 eq	6.38E-2	5.80E-5	9.50E-5	6.39E-2	1.64E-5	5.33E-4	4.04E-7	-1.29E-4	6.43E-2
ODP	kg CFC11 eq	4.87E-7	3.20E-8	1.50E-8	5.33E-7	1.07E-8	1.41E-7	5.37E-10	-8.56E-8	6.01E-7
AP	mol H+ eq	7.39E-3	1.43E-3	5.93E-4	9.42E-3	2.63E-4	2.50E-3	1.31E-5	-7.84E-4	1.14E-2
EP-fw	kg P eq	7.95E-5	1.07E-6	2.75E-6	8.33E-5	3.80E-7	1.77E-5	1.77E-8	-4.86E-6	9.65E-5
EP-m	kg N eq	1.47E-3	4.28E-4	1.78E-4	2.08E-3	9.42E-5	6.15E-4	7.65E-6	-1.89E-4	2.61E-3
EP-T	mol N eq	1.42E-2	4.73E-3	2.07E-3	2.10E-2	1.04E-3	6.78E-3	5.20E-5	-2.28E-3	2.66E-2
POCP	kg NMVOC eq	4.39E-3	1.30E-3	5.28E-4	6.21E-3	2.97E-4	2.04E-3	1.79E-5	-6.52E-4	7.91E-3
ADP-mm	kg Sb eq	9.10E-4	3.24E-6	1.90E-6	9.15E-4	1.20E-6	9.82E-6	1.34E-8	-2.31E-6	9.23E-4
ADP-f	MJ	3.37E+1	2.12E+0	1.63E+0	3.74E+1	7.10E-1	6.88E+0	3.92E-2	-7.74E+0	3.73E+1
WDP	m3 depriv.	1.60E+0	6.01E-3	3.40E+0	5.01E+0	2.18E-3	2.62E-1	3.72E-4	-1.65E-1	5.11E+0
PM	disease inc.	7.25E-8	1.14E-8	8.84E-9	9.27E-8	4.17E-9	3.16E-8	2.69E-10	-6.06E-9	1.23E-7
IR	kBq U-235 eq	1.01E-1	9.22E-3	4.80E-3	1.15E-1	3.10E-3	2.39E-2	1.77E-4	-6.76E-3	1.35E-1
ETP-fw	CTUe	3.68E+1	1.67E+0	1.38E+0	3.99E+1	5.76E-1	4.98E+1	5.48E-1	-3.41E+0	8.74E+1
HTP-c	CTUh	1.22E-9	6.57E-11	1.14E-10	1.40E-9	2.05E-11	8.60E-10	1.14E-12	-9.79E-11	2.18E-9
HTP-nc	CTUh	3.23E-8	1.91E-9	2.83E-9	3.71E-8	6.87E-10	1.81E-8	1.07E-10	-2.82E-9	5.32E-8
SQP	Pt	4.13E+1	1.59E+0	5.62E+0	4.85E+1	6.07E-1	4.34E+0	9.91E-2	-7.19E+0	4.63E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	7.44E+0	2.81E-2	1.44E+0	8.91E+0	1.02E-2	4.87E-1	1.36E-3	-1.49E+0	7.92E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	7.44E+0	2.81E-2	1.44E+0	8.91E+0	1.02E-2	4.87E-1	1.36E-3	-1.49E+0	7.92E+0
PENRE	MJ	3.61E+1	2.25E+0	1.77E+0	4.01E+1	7.53E-1	7.32E+0	4.16E-2	-8.49E+0	3.97E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	3.61E+1	2.25E+0	1.77E+0	4.01E+1	7.53E-1	7.32E+0	4.16E-2	-8.49E+0	3.97E+1
PET	MJ	4.35E+1	2.27E+0	3.20E+0	4.90E+1	7.63E-1	7.81E+0	4.29E-2	-9.98E+0	4.76E+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	2.41E-2	2.21E-4	7.96E-2	1.04E-1	8.03E-5	7.21E-3	4.73E-5	-1.98E-3	1.09E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.37E-4	4.92E-6	2.49E-6	1.45E-4	1.81E-6	1.12E-5	4.86E-8	-8.52E-6	1.49E-4
NHWD	kg	1.98E-1	1.13E-1	1.82E-2	3.30E-1	4.40E-2	2.62E-1	1.76E-1	-1.29E-2	7.98E-1
RWD	kg	8.81E-5	1.44E-5	5.04E-6	1.08E-4	4.83E-6	2.58E-5	2.54E-7	-6.82E-6	1.32E-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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