Environmental Profile

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

Ecochain v3.5.80

Product:	3025167 - PVC TAD Pipe GY 63 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	3.28E+0	1.20E-1	1.89E-1	3.59E+0	5.80E-2	1.83E+0	1.55E-2	-1.94E+0	3.56E+0
GWP-f	kg CO2 eq	3.64E+0	1.20E-1	1.49E-1	3.91E+0	5.80E-2	1.43E+0	1.55E-2	-1.92E+0	3.49E+0
GWP-b	kg CO2 eq	-3.84E-1	7.28E-5	3.94E-2	-3.45E-1	3.52E-5	4.05E-1	1.99E-5	-1.33E-2	4.67E-2
GWP-luluc	kg CO2 eq	3.03E-2	4.24E-5	1.35E-4	3.05E-2	2.05E-5	6.58E-4	4.23E-7	-1.29E-3	2.99E-2
ODP	kg CFC11 eq	1.93E-6	2.76E-8	1.94E-8	1.98E-6	1.34E-8	1.74E-7	6.47E-10	-9.49E-7	1.22E-6
AP	mol H+ eq	1.74E-2	6.83E-4	8.17E-4	1.89E-2	3.30E-4	3.09E-3	1.54E-5	-7.39E-3	1.50E-2
EP-fw	kg P eq	1.67E-4	9.86E-7	3.55E-6	1.71E-4	4.77E-7	2.18E-5	1.91E-8	-7.06E-5	1.23E-4
EP-m	kg N eq	3.09E-3	2.44E-4	2.41E-4	3.57E-3	1.18E-4	7.60E-4	9.43E-6	-1.30E-3	3.16E-3
EP-T	mol N eq	3.20E-2	2.69E-3	2.87E-3	3.76E-2	1.30E-3	8.38E-3	6.16E-5	-1.41E-2	3.32E-2
POCP	kg NMVOC eq	1.08E-2	7.69E-4	7.15E-4	1.23E-2	3.72E-4	2.52E-3	2.08E-5	-4.79E-3	1.04E-2
ADP-mm	kg Sb eq	1.27E-3	3.10E-6	2.76E-6	1.28E-3	1.50E-6	1.22E-5	1.52E-8	-3.87E-5	1.25E-3
ADP-f	MJ	9.09E+1	1.84E+0	2.09E+0	9.48E+1	8.90E-1	8.55E+0	4.67E-2	-4.67E+1	5.76E+1
WDP	m3 depriv.	5.88E+0	5.65E-3	4.26E+0	1.01E+1	2.73E-3	3.23E-1	2.53E-4	-2.74E+0	7.73E+0
PM	disease inc.	1.33E-7	1.08E-8	1.20E-8	1.56E-7	5.23E-9	3.93E-8	3.19E-10	-4.88E-8	1.52E-7
IR	kBq U-235 eq	1.98E-1	8.04E-3	6.04E-3	2.12E-1	3.89E-3	2.96E-2	2.14E-4	-8.89E-2	1.57E-1
ETP-fw	CTUe	7.19E+1	1.49E+0	1.91E+0	7.53E+1	7.22E-1	6.08E+1	6.65E-1	-2.82E+1	1.09E+2
HTP-c	CTUh	2.74E-9	5.32E-11	1.50E-10	2.94E-9	2.57E-11	9.44E-10	1.18E-12	-1.02E-9	2.89E-9
HTP-nc	CTUh	9.06E-8	1.78E-9	3.85E-9	9.62E-8	8.61E-10	2.20E-8	1.28E-10	-3.52E-8	8.39E-8
SQP	Pt	4.90E+1	1.57E+0	9.03E+0	5.96E+1	7.61E-1	5.43E+0	1.18E-1	-1.24E+1	5.35E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.00E+1	2.64E-2	2.30E+0	1.23E+1	1.28E-2	6.01E-1	1.65E-3	-3.51E+0	9.45E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.00E+1	2.64E-2	2.30E+0	1.23E+1	1.28E-2	6.01E-1	1.65E-3	-3.51E+0	9.45E+0
PENRE	MJ	9.75E+1	1.95E+0	2.26E+0	1.02E+2	9.45E-1	9.09E+0	4.96E-2	-5.03E+1	6.15E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	9.75E+1	1.95E+0	2.26E+0	1.02E+2	9.45E-1	9.09E+0	4.96E-2	-5.03E+1	6.15E+1
PET	MJ	1.08E+2	1.98E+0	4.56E+0	1.14E+2	9.57E-1	9.69E+0	5.12E-2	-5.38E+1	7.10E+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	6.50E-2	2.08E-4	9.97E-2	1.65E-1	1.01E-4	8.85E-3	5.72E-5	-2.88E-2	1.45E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.99E-4	4.70E-6	3.12E-6	2.07E-4	2.28E-6	1.38E-5	5.61E-8	-3.86E-5	1.84E-4
NHWD	kg	3.82E-1	1.14E-1	2.28E-2	5.19E-1	5.51E-2	3.25E-1	2.20E-1	-1.48E-1	9.71E-1
RWD	kg	1.73E-4	1.25E-5	6.31E-6	1.92E-4	6.05E-6	3.21E-5	3.06E-7	-7.85E-5	1.52E-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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