Environmental Profile

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

Ecochain v3.5.80

Product:	3025519 - PVC Shaft Pipe GY 315 L=3 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

Results

Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	1.43E+1	1.27E+0	1.69E+0	1.72E+1	5.38E-1	1.90E+1	1.40E-1	-6.99E+0	2.99E+1
GWP-f	kg CO2 eq	1.94E+1	1.27E+0	1.35E+0	2.20E+1	5.37E-1	1.30E+1	1.40E-1	-6.95E+0	2.88E+1
GWP-b	kg CO2 eq	-5.40E+0	7.70E-4	3.40E-1	-5.05E+0	3.26E-4	5.98E+0	1.80E-4	-3.23E-2	8.97E-1
GWP-luluc	kg CO2 eq	2.70E-1	4.49E-4	1.08E-3	2.72E-1	1.90E-4	6.02E-3	3.88E-6	-3.80E-3	2.74E-1
ODP	kg CFC11 eq	8.44E-6	2.92E-7	1.74E-7	8.91E-6	1.24E-7	1.58E-6	5.95E-9	-2.40E-6	8.21E-6
AP	mol H+ eq	1.01E-1	7.23E-3	6.77E-3	1.15E-1	3.06E-3	2.85E-2	1.41E-4	-2.14E-2	1.25E-1
EP-fw	kg P eq	1.01E-3	1.04E-5	3.18E-5	1.05E-3	4.42E-6	1.99E-4	1.74E-7	-1.76E-4	1.08E-3
EP-m	kg N eq	1.84E-2	2.59E-3	2.04E-3	2.31E-2	1.10E-3	7.07E-3	8.54E-5	-4.29E-3	2.70E-2
EP-T	mol N eq	1.91E-1	2.85E-2	2.36E-2	2.43E-1	1.21E-2	7.79E-2	5.65E-4	-5.02E-2	2.84E-1
POCP	kg NMVOC eq	6.09E-2	8.15E-3	6.05E-3	7.51E-2	3.45E-3	2.34E-2	1.91E-4	-1.55E-2	8.67E-2
ADP-mm	kg Sb eq	1.02E-2	3.28E-5	2.14E-5	1.02E-2	1.39E-5	1.12E-4	1.39E-7	-9.03E-5	1.03E-2
ADP-f	MJ	4.55E+2	1.95E+1	1.90E+1	4.93E+2	8.25E+0	7.87E+1	4.29E-1	-1.51E+2	4.29E+2
WDP	m3 depriv.	2.62E+1	5.98E-2	3.96E+1	6.59E+1	2.53E-2	2.93E+0	2.37E-3	-6.47E+0	6.24E+1
PM	disease inc.	9.81E-7	1.15E-7	1.01E-7	1.20E-6	4.85E-8	3.64E-7	2.93E-9	-1.61E-7	1.45E-6
IR	kBq U-235 eq	1.24E+0	8.51E-2	5.58E-2	1.38E+0	3.60E-2	2.72E-1	1.96E-3	-2.25E-1	1.46E+0
ETP-fw	CTUe	4.56E+2	1.58E+1	1.57E+1	4.87E+2	6.70E+0	5.48E+2	5.99E+0	-9.14E+1	9.57E+2
HTP-c	CTUh	1.71E-8	5.63E-10	1.31E-9	1.90E-8	2.38E-10	8.86E-9	1.08E-11	-2.82E-9	2.53E-8
HTP-nc	CTUh	5.32E-7	1.88E-8	3.24E-8	5.83E-7	7.98E-9	2.01E-7	1.16E-9	-9.15E-8	7.02E-7
SQP	Pt	6.25E+2	1.67E+1	6.17E+1	7.03E+2	7.06E+0	5.03E+1	1.08E+0	-1.26E+2	6.35E+2
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.09E+2	2.79E-1	1.58E+1	1.25E+2	1.18E-1	5.49E+0	1.50E-2	-2.77E+1	1.03E+2
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.09E+2	2.79E-1	1.58E+1	1.25E+2	1.18E-1	5.49E+0	1.50E-2	-2.77E+1	1.03E+2
PENRE	MJ	4.87E+2	2.07E+1	2.05E+1	5.28E+2	8.76E+0	8.37E+1	4.55E-1	-1.64E+2	4.57E+2
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	4.87E+2	2.07E+1	2.05E+1	5.28E+2	8.76E+0	8.37E+1	4.55E-1	-1.64E+2	4.57E+2
PET	MJ	5.97E+2	2.10E+1	3.63E+1	6.54E+2	8.87E+0	8.92E+1	4.70E-1	-1.92E+2	5.61E+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	3.35E-1	2.20E-3	9.28E-1	1.27E+0	9.33E-4	8.07E-2	5.25E-4	-7.17E-2	1.28E+0

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.30E-3	4.98E-5	2.90E-5	1.38E-3	2.11E-5	1.27E-4	5.15E-7	-1.39E-4	1.39E-3
NHWD	kg	2.48E+0	1.21E+0	2.13E-1	3.90E+0	5.11E-1	3.05E+0	2.04E+0	-3.97E-1	9.11E+0
RWD	kg	1.08E-3	1.32E-4	5.87E-5	1.27E-3	5.61E-5	2.96E-4	2.81E-6	-2.06E-4	1.42E-3
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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