Environmental Profile

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

Ecochain v3.5.80

Product:	3026083 - Spreading PVC 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	4.52E+0	1.64E-1	2.49E-1	4.93E+0	7.93E-2	2.47E+0	2.11E-2	-2.64E+0	4.85E+0
GWP-f	kg CO2 eq	4.97E+0	1.64E-1	1.98E-1	5.33E+0	7.92E-2	1.95E+0	2.11E-2	-2.62E+0	4.75E+0
GWP-b	kg CO2 eq	-4.89E-1	9.97E-5	5.00E-2	-4.39E-1	4.81E-5	5.20E-1	2.72E-5	-1.82E-2	6.25E-2
GWP-luluc	kg CO2 eq	3.77E-2	5.81E-5	1.58E-4	3.79E-2	2.80E-5	9.00E-4	5.77E-7	-1.75E-3	3.71E-2
ODP	kg CFC11 eq	2.65E-6	3.79E-8	2.56E-8	2.71E-6	1.83E-8	2.37E-7	8.84E-10	-1.30E-6	1.67E-6
AP	mol H+ eq	2.37E-2	9.36E-4	9.96E-4	2.57E-2	4.51E-4	4.22E-3	2.10E-5	-1.01E-2	2.03E-2
EP-fw	kg P eq	2.27E-4	1.35E-6	4.68E-6	2.33E-4	6.52E-7	2.98E-5	2.60E-8	-9.64E-5	1.67E-4
EP-m	kg N eq	4.19E-3	3.35E-4	3.00E-4	4.82E-3	1.61E-4	1.04E-3	1.29E-5	-1.77E-3	4.26E-3
EP-T	mol N eq	4.35E-2	3.69E-3	3.47E-3	5.07E-2	1.78E-3	1.14E-2	8.42E-5	-1.92E-2	4.48E-2
POCP	kg NMVOC eq	1.47E-2	1.05E-3	8.90E-4	1.66E-2	5.09E-4	3.44E-3	2.85E-5	-6.53E-3	1.41E-2
ADP-mm	kg Sb eq	1.64E-3	4.25E-6	3.14E-6	1.65E-3	2.05E-6	1.66E-5	2.07E-8	-5.28E-5	1.62E-3
ADP-f	MJ	1.24E+2	2.52E+0	2.79E+0	1.29E+2	1.22E+0	1.17E+1	6.38E-2	-6.37E+1	7.87E+1
WDP	m3 depriv.	8.04E+0	7.74E-3	5.83E+0	1.39E+1	3.73E-3	4.41E-1	3.42E-4	-3.74E+0	1.06E+1
PM	disease inc.	1.79E-7	1.48E-8	1.49E-8	2.09E-7	7.15E-9	5.38E-8	4.36E-10	-6.64E-8	2.04E-7
IR	kBq U-235 eq	2.70E-1	1.10E-2	8.21E-3	2.89E-1	5.31E-3	4.05E-2	2.92E-4	-1.21E-1	2.14E-1
ETP-fw	CTUe	9.73E+1	2.05E+0	2.31E+0	1.02E+2	9.87E-1	8.32E+1	9.11E-1	-3.84E+1	1.48E+2
HTP-c	CTUh	3.71E-9	7.29E-11	1.93E-10	3.98E-9	3.51E-11	1.29E-9	1.62E-12	-1.40E-9	3.90E-9
HTP-nc	CTUh	1.23E-7	2.44E-9	4.77E-9	1.30E-7	1.18E-9	3.01E-8	1.76E-10	-4.81E-8	1.13E-7
SQP	Pt	6.38E+1	2.16E+0	9.08E+0	7.51E+1	1.04E+0	7.42E+0	1.61E-1	-1.64E+1	6.73E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.32E+1	3.62E-2	2.32E+0	1.56E+1	1.74E-2	8.22E-1	2.26E-3	-4.68E+0	1.17E+1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.32E+1	3.62E-2	2.32E+0	1.56E+1	1.74E-2	8.22E-1	2.26E-3	-4.68E+0	1.17E+1
PENRE	MJ	1.33E+2	2.68E+0	3.02E+0	1.39E+2	1.29E+0	1.24E+1	6.77E-2	-6.86E+1	8.40E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.33E+2	2.68E+0	3.02E+0	1.39E+2	1.29E+0	1.24E+1	6.77E-2	-6.86E+1	8.40E+1
PET	MJ	1.46E+2	2.71E+0	5.34E+0	1.54E+2	1.31E+0	1.33E+1	7.00E-2	-7.33E+1	9.58E+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	8.86E-2	2.85E-4	1.36E-1	2.25E-1	1.38E-4	1.21E-2	7.82E-5	-3.93E-2	1.98E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	2.62E-4	6.45E-6	4.27E-6	2.72E-4	3.11E-6	1.88E-5	7.66E-8	-5.28E-5	2.41E-4
NHWD	kg	5.21E-1	1.56E-1	3.13E-2	7.08E-1	7.54E-2	4.44E-1	3.01E-1	-2.02E-1	1.33E+0
RWD	kg	2.36E-4	1.71E-5	8.64E-6	2.62E-4	8.27E-6	4.39E-5	4.18E-7	-1.07E-4	2.07E-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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