Environmental Profile

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

Ecochain v3.5.80

Product:	3025883 - PVC Branch 67°3 GY 100 S/S/S BC
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	8.97E-1	3.40E-2	4.10E-2	9.72E-1	1.29E-2	5.51E-1	3.98E-3	-5.12E-1	1.03E+0
GWP-f	kg CO2 eq	1.05E+0	3.39E-2	3.26E-2	1.11E+0	1.28E-2	3.54E-1	3.98E-3	-5.92E-1	8.91E-1
GWP-b	kg CO2 eq	-1.49E-1	2.06E-5	8.38E-3	-1.41E-1	7.80E-6	1.97E-1	5.00E-6	8.10E-2	1.37E-1
GWP-luluc	kg CO2 eq	1.43E-3	1.20E-5	2.75E-5	1.47E-3	4.55E-6	1.60E-4	1.07E-7	-1.01E-3	6.27E-4
ODP	kg CFC11 eq	5.38E-7	7.82E-9	4.22E-9	5.50E-7	2.96E-9	4.41E-8	1.51E-10	-2.76E-7	3.21E-7
AP	mol H+ eq	5.14E-3	1.93E-4	1.70E-4	5.51E-3	7.32E-5	7.70E-4	3.66E-6	-2.55E-3	3.81E-3
EP-fw	kg P eq	5.21E-5	2.79E-7	7.71E-7	5.31E-5	1.06E-7	5.34E-6	4.80E-9	-2.80E-5	3.06E-5
EP-m	kg N eq	9.69E-4	6.92E-5	5.08E-5	1.09E-3	2.62E-5	1.92E-4	2.24E-6	-4.77E-4	8.32E-4
EP-T	mol N eq	1.05E-2	7.62E-4	5.94E-4	1.18E-2	2.89E-4	2.11E-3	1.46E-5	-5.20E-3	9.04E-3
POCP	kg NMVOC eq	3.27E-3	2.18E-4	1.50E-4	3.64E-3	8.25E-5	6.33E-4	5.01E-6	-1.71E-3	2.66E-3
ADP-mm	kg Sb eq	1.28E-3	8.78E-7	5.53E-7	1.28E-3	3.32E-7	3.05E-6	3.68E-9	-1.18E-5	1.27E-3
ADP-f	MJ	2.53E+1	5.21E-1	4.57E-1	2.63E+1	1.97E-1	2.07E+0	1.10E-2	-1.39E+1	1.46E+1
WDP	m3 depriv.	1.63E+0	1.60E-3	9.44E-1	2.58E+0	6.05E-4	7.95E-2	7.68E-5	-8.95E-1	1.77E+0
PM	disease inc.	3.86E-8	3.06E-9	2.52E-9	4.42E-8	1.16E-9	9.65E-9	7.56E-11	-2.36E-8	3.15E-8
IR	kBq U-235 eq	5.98E-2	2.28E-3	1.33E-3	6.34E-2	8.62E-4	7.35E-3	5.04E-5	-3.10E-2	4.07E-2
ETP-fw	CTUe	3.80E+1	4.23E-1	3.96E-1	3.88E+1	1.60E-1	1.55E+1	1.70E-1	-1.44E+1	4.02E+1
HTP-c	CTUh	9.74E-10	1.51E-11	3.21E-11	1.02E-9	5.70E-12	2.36E-10	3.05E-13	-3.88E-10	8.75E-10
HTP-nc	CTUh	2.99E-8	5.04E-10	8.08E-10	3.12E-8	1.91E-10	5.48E-9	3.27E-11	-1.19E-8	2.50E-8
SQP	Pt	2.01E+1	4.46E-1	1.70E+0	2.23E+1	1.69E-1	1.27E+0	2.81E-2	-2.78E+1	-4.01E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	3.88E+0	7.47E-3	4.34E-1	4.32E+0	2.83E-3	1.47E-1	4.02E-4	-4.99E+0	-5.24E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	3.88E+0	7.47E-3	4.34E-1	4.32E+0	2.83E-3	1.47E-1	4.02E-4	-4.99E+0	-5.24E-1
PENRE	MJ	2.72E+1	5.53E-1	4.94E-1	2.82E+1	2.09E-1	2.20E+0	1.17E-2	-1.50E+1	1.56E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	2.72E+1	5.53E-1	4.94E-1	2.82E+1	2.09E-1	2.20E+0	1.17E-2	-1.50E+1	1.56E+1
PET	MJ	3.10E+1	5.61E-1	9.29E-1	3.25E+1	2.12E-1	2.35E+0	1.21E-2	-2.00E+1	1.51E+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	1.91E-2	5.90E-5	2.21E-2	4.12E-2	2.23E-5	2.19E-3	1.34E-5	-1.14E-2	3.21E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.80E-4	1.33E-6	6.92E-7	1.82E-4	5.04E-7	3.43E-6	1.34E-8	-1.25E-5	1.74E-4
NHWD	kg	1.21E-1	3.23E-2	5.06E-3	1.58E-1	1.22E-2	7.58E-2	4.89E-2	-5.37E-2	2.41E-1
RWD	kg	5.27E-5	3.54E-6	1.40E-6	5.77E-5	1.34E-6	7.98E-6	7.15E-8	-2.80E-5	3.91E-5
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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