Environmental Profile

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

Ecochain v3.5.80

Product:	3026022 - PVC Branch 87°3 GY 125 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	9.41E-1	3.96E-2	4.80E-2	1.03E+0	1.47E-2	7.52E-1	4.55E-3	-5.92E-1	1.21E+0
GWP-f	kg CO2 eq	1.22E+0	3.96E-2	3.79E-2	1.30E+0	1.47E-2	4.06E-1	4.55E-3	-6.98E-1	1.03E+0
GWP-b	kg CO2 eq	-2.85E-1	2.40E-5	1.00E-2	-2.75E-1	8.92E-6	3.46E-1	5.71E-6	1.07E-1	1.78E-1
GWP-luluc	kg CO2 eq	1.78E-3	1.40E-5	3.46E-5	1.83E-3	5.20E-6	1.83E-4	1.22E-7	-1.31E-3	7.09E-4
ODP	kg CFC11 eq	6.17E-7	9.12E-9	4.93E-9	6.32E-7	3.38E-9	5.07E-8	1.72E-10	-3.18E-7	3.68E-7
AP	mol H+ eq	6.06E-3	2.25E-4	2.08E-4	6.49E-3	8.37E-5	8.91E-4	4.18E-6	-3.08E-3	4.39E-3
EP-fw	kg P eq	6.13E-5	3.26E-7	9.02E-7	6.25E-5	1.21E-7	6.13E-6	5.48E-9	-3.39E-5	3.48E-5
EP-m	kg N eq	1.16E-3	8.07E-5	6.14E-5	1.30E-3	2.99E-5	2.24E-4	2.55E-6	-5.88E-4	9.72E-4
EP-T	mol N eq	1.25E-2	8.89E-4	7.32E-4	1.42E-2	3.30E-4	2.46E-3	1.67E-5	-6.45E-3	1.05E-2
POCP	kg NMVOC eq	3.92E-3	2.54E-4	1.82E-4	4.36E-3	9.43E-5	7.37E-4	5.72E-6	-2.11E-3	3.09E-3
ADP-mm	kg Sb eq	1.47E-3	1.02E-6	7.04E-7	1.48E-3	3.80E-7	3.53E-6	4.20E-9	-1.38E-5	1.47E-3
ADP-f	MJ	2.94E+1	6.08E-1	5.30E-1	3.05E+1	2.25E-1	2.39E+0	1.26E-2	-1.63E+1	1.68E+1
WDP	m3 depriv.	1.88E+0	1.86E-3	1.08E+0	2.96E+0	6.92E-4	9.09E-2	8.77E-5	-1.05E+0	2.00E+0
PM	disease inc.	4.76E-8	3.57E-9	3.05E-9	5.42E-8	1.33E-9	1.12E-8	8.64E-11	-3.03E-8	3.65E-8
IR	kBq U-235 eq	6.98E-2	2.66E-3	1.53E-3	7.40E-2	9.85E-4	8.50E-3	5.75E-5	-3.70E-2	4.65E-2
ETP-fw	CTUe	4.58E+1	4.93E-1	4.87E-1	4.68E+1	1.83E-1	1.77E+1	1.94E-1	-1.80E+1	4.68E+1
HTP-c	CTUh	1.17E-9	1.76E-11	3.82E-11	1.23E-9	6.52E-12	2.74E-10	3.48E-13	-4.92E-10	1.02E-9
HTP-nc	CTUh	3.48E-8	5.88E-10	9.79E-10	3.63E-8	2.18E-10	6.29E-9	3.73E-11	-1.42E-8	2.87E-8
SQP	Pt	3.32E+1	5.20E-1	2.32E+0	3.60E+1	1.93E-1	1.47E+0	3.21E-2	-4.24E+1	-4.69E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	5.94E+0	8.72E-3	5.91E-1	6.54E+0	3.23E-3	1.68E-1	4.60E-4	-7.38E+0	-6.74E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	5.94E+0	8.72E-3	5.91E-1	6.54E+0	3.23E-3	1.68E-1	4.60E-4	-7.38E+0	-6.74E-1
PENRE	MJ	3.15E+1	6.45E-1	5.74E-1	3.28E+1	2.39E-1	2.54E+0	1.33E-2	-1.75E+1	1.80E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	3.15E+1	6.45E-1	5.74E-1	3.28E+1	2.39E-1	2.54E+0	1.33E-2	-1.75E+1	1.80E+1
PET	MJ	3.75E+1	6.54E-1	1.16E+0	3.93E+1	2.43E-1	2.71E+0	1.38E-2	-2.49E+1	1.73E+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	2.21E-2	6.87E-5	2.53E-2	4.74E-2	2.55E-5	2.51E-3	1.53E-5	-1.36E-2	3.64E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	2.09E-4	1.55E-6	7.90E-7	2.11E-4	5.77E-7	3.98E-6	1.53E-8	-1.51E-5	2.01E-4
NHWD	kg	1.46E-1	3.77E-2	5.79E-3	1.89E-1	1.40E-2	8.77E-2	5.59E-2	-6.70E-2	2.80E-1
RWD	kg	6.19E-5	4.13E-6	1.60E-6	6.76E-5	1.53E-6	9.27E-6	8.17E-8	-3.37E-5	4.48E-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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