Environmental Profile

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

Ecochain v3.5.80

Product:	3026015 - PVC Branch 45° GY 125 S/S/SP 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	1.34E+0	4.99E-2	6.10E-2	1.45E+0	1.94E-2	7.69E-1	6.01E-3	-7.91E-1	1.45E+0
GWP-f	kg CO2 eq	1.53E+0	4.99E-2	4.86E-2	1.63E+0	1.94E-2	5.30E-1	6.01E-3	-8.61E-1	1.32E+0
GWP-b	kg CO2 eq	-1.90E-1	3.03E-5	1.23E-2	-1.78E-1	1.18E-5	2.39E-1	7.55E-6	7.15E-2	1.33E-1
GWP-luluc	kg CO2 eq	1.86E-3	1.76E-5	3.92E-5	1.92E-3	6.87E-6	2.40E-4	1.61E-7	-1.15E-3	1.01E-3
ODP	kg CFC11 eq	8.05E-7	1.15E-8	6.28E-9	8.22E-7	4.47E-9	6.59E-8	2.27E-10	-4.13E-7	4.80E-7
AP	mol H+ eq	7.48E-3	2.84E-4	2.46E-4	8.01E-3	1.11E-4	1.14E-3	5.53E-6	-3.58E-3	5.68E-3
EP-fw	kg P eq	7.52E-5	4.10E-7	1.15E-6	7.68E-5	1.60E-7	8.01E-6	7.24E-9	-3.76E-5	4.74E-5
EP-m	kg N eq	1.37E-3	1.02E-4	7.40E-5	1.54E-3	3.95E-5	2.80E-4	3.38E-6	-6.57E-4	1.21E-3
EP-T	mol N eq	1.49E-2	1.12E-3	8.57E-4	1.69E-2	4.36E-4	3.09E-3	2.20E-5	-7.12E-3	1.33E-2
POCP	kg NMVOC eq	4.72E-3	3.20E-4	2.19E-4	5.26E-3	1.25E-4	9.24E-4	7.56E-6	-2.38E-3	3.94E-3
ADP-mm	kg Sb eq	1.92E-3	1.29E-6	7.80E-7	1.92E-3	5.02E-7	4.50E-6	5.55E-9	-1.74E-5	1.91E-3
ADP-f	MJ	3.74E+1	7.65E-1	6.84E-1	3.89E+1	2.98E-1	3.08E+0	1.66E-2	-2.05E+1	2.18E+1
WDP	m3 depriv.	2.45E+0	2.35E-3	1.43E+0	3.88E+0	9.14E-4	1.20E-1	1.16E-4	-1.28E+0	2.72E+0
PM	disease inc.	5.36E-8	4.50E-9	3.67E-9	6.18E-8	1.75E-9	1.42E-8	1.14E-10	-3.02E-8	4.77E-8
IR	kBq U-235 eq	8.77E-2	3.35E-3	2.01E-3	9.31E-2	1.30E-3	1.09E-2	7.60E-5	-4.34E-2	6.19E-2
ETP-fw	CTUe	5.08E+1	6.22E-1	5.71E-1	5.20E+1	2.42E-1	2.33E+1	2.56E-1	-1.78E+1	5.80E+1
HTP-c	CTUh	1.43E-9	2.21E-11	4.73E-11	1.50E-9	8.61E-12	3.49E-10	4.60E-13	-5.43E-10	1.31E-9
HTP-nc	CTUh	4.42E-8	7.41E-10	1.18E-9	4.61E-8	2.88E-10	8.19E-9	4.93E-11	-1.68E-8	3.78E-8
SQP	Pt	2.54E+1	6.55E-1	2.28E+0	2.83E+1	2.55E-1	1.90E+0	4.24E-2	-3.03E+1	1.85E-1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	5.00E+0	1.10E-2	5.84E-1	5.59E+0	4.27E-3	2.20E-1	6.08E-4	-5.51E+0	3.05E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	5.00E+0	1.10E-2	5.84E-1	5.59E+0	4.27E-3	2.20E-1	6.08E-4	-5.51E+0	3.05E-1
PENRE	MJ	4.01E+1	8.13E-1	7.39E-1	4.17E+1	3.16E-1	3.27E+0	1.76E-2	-2.21E+1	2.32E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	4.01E+1	8.13E-1	7.39E-1	4.17E+1	3.16E-1	3.27E+0	1.76E-2	-2.21E+1	2.32E+1
PET	MJ	4.51E+1	8.24E-1	1.32E+0	4.73E+1	3.20E-1	3.49E+0	1.82E-2	-2.76E+1	2.35E+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	2.81E-2	8.66E-5	3.34E-2	6.16E-2	3.37E-5	3.28E-3	2.03E-5	-1.52E-2	4.97E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	2.70E-4	1.96E-6	1.04E-6	2.73E-4	7.62E-7	5.05E-6	2.03E-8	-1.81E-5	2.60E-4
NHWD	kg	1.72E-1	4.74E-2	7.65E-3	2.27E-1	1.85E-2	1.12E-1	7.38E-2	-7.57E-2	3.56E-1
RWD	kg	7.67E-5	5.21E-6	2.11E-6	8.41E-5	2.03E-6	1.17E-5	1.08E-7	-3.90E-5	5.89E-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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