Environmental Profile

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

Ecochain v3.5.80

Product:	3026161 - PVC Access Plug GY 110
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	5.13E-1	3.37E-2	3.00E-2	5.77E-1	6.73E-3	3.24E-1	2.16E-3	-2.74E-1	6.35E-1
GWP-f	kg CO2 eq	6.32E-1	3.37E-2	2.24E-2	6.88E-1	6.73E-3	2.09E-1	2.16E-3	-3.26E-1	5.80E-1
GWP-b	kg CO2 eq	-1.19E-1	2.05E-5	7.58E-3	-1.12E-1	4.09E-6	1.15E-1	2.72E-6	5.18E-2	5.49E-2
GWP-luluc	kg CO2 eq	8.66E-4	1.19E-5	3.64E-5	9.15E-4	2.38E-6	8.44E-5	5.59E-8	-5.98E-4	4.03E-4
ODP	kg CFC11 eq	3.02E-7	7.76E-9	3.05E-9	3.12E-7	1.55E-9	2.36E-8	8.06E-11	-1.46E-7	1.91E-7
AP	mol H+ eq	3.10E-3	1.92E-4	1.88E-4	3.48E-3	3.83E-5	4.12E-4	1.96E-6	-1.39E-3	2.54E-3
EP-fw	kg P eq	2.90E-5	2.77E-7	5.58E-7	2.99E-5	5.54E-8	2.83E-6	2.54E-9	-1.55E-5	1.72E-5
EP-m	kg N eq	6.12E-4	6.86E-5	5.09E-5	7.32E-4	1.37E-5	1.03E-4	1.30E-6	-2.64E-4	5.86E-4
EP-T	mol N eq	6.60E-3	7.56E-4	6.87E-4	8.04E-3	1.51E-4	1.14E-3	7.81E-6	-2.89E-3	6.45E-3
POCP	kg NMVOC eq	2.10E-3	2.16E-4	1.51E-4	2.46E-3	4.32E-5	3.40E-4	2.69E-6	-9.39E-4	1.91E-3
ADP-mm	kg Sb eq	3.64E-4	8.71E-7	7.96E-7	3.65E-4	1.74E-7	1.62E-6	1.95E-9	-6.57E-6	3.61E-4
ADP-f	MJ	1.50E+1	5.17E-1	3.01E-1	1.58E+1	1.03E-1	1.09E+0	5.88E-3	-7.57E+0	9.42E+0
WDP	m3 depriv.	8.84E-1	1.59E-3	5.02E-1	1.39E+0	3.17E-4	4.24E-2	3.54E-5	-4.82E-1	9.49E-1
PM	disease inc.	2.69E-8	3.04E-9	2.55E-9	3.25E-8	6.07E-10	5.12E-9	4.05E-11	-1.34E-8	2.48E-8
IR	kBq U-235 eq	3.57E-2	2.26E-3	7.57E-4	3.87E-2	4.51E-4	3.90E-3	2.71E-5	-1.69E-2	2.62E-2
ETP-fw	CTUe	2.07E+1	4.20E-1	4.52E-1	2.16E+1	8.39E-2	8.31E+0	9.11E-2	-8.30E+0	2.18E+1
HTP-c	CTUh	5.23E-10	1.49E-11	2.76E-11	5.66E-10	2.98E-12	1.22E-10	1.60E-13	-2.12E-10	4.79E-10
HTP-nc	CTUh	1.54E-8	5.00E-10	8.23E-10	1.67E-8	1.00E-10	2.91E-9	1.75E-11	-6.44E-9	1.33E-8
SQP	Pt	1.52E+1	4.42E-1	3.51E+0	1.91E+1	8.84E-2	6.68E-1	1.51E-2	-1.68E+1	3.14E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	3.49E+0	7.42E-3	8.91E-1	4.39E+0	1.48E-3	7.76E-2	2.21E-4	-3.00E+0	1.47E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	3.49E+0	7.42E-3	8.91E-1	4.39E+0	1.48E-3	7.76E-2	2.21E-4	-3.00E+0	1.47E+0
PENRE	MJ	1.61E+1	5.49E-1	3.25E-1	1.69E+1	1.10E-1	1.16E+0	6.24E-3	-8.15E+0	1.01E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.61E+1	5.49E-1	3.25E-1	1.69E+1	1.10E-1	1.16E+0	6.24E-3	-8.15E+0	1.01E+1
PET	MJ	1.95E+1	5.56E-1	1.22E+0	2.13E+1	1.11E-1	1.24E+0	6.46E-3	-1.12E+1	1.15E+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	1.05E-2	5.85E-5	1.18E-2	2.24E-2	1.17E-5	1.19E-3	7.22E-6	-6.32E-3	1.73E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	5.65E-5	1.32E-6	3.66E-7	5.82E-5	2.64E-7	1.83E-6	7.13E-9	-6.92E-6	5.33E-5
NHWD	kg	9.55E-2	3.20E-2	2.70E-3	1.30E-1	6.40E-3	4.02E-2	2.60E-2	-2.92E-2	1.74E-1
RWD	kg	3.42E-5	3.52E-6	7.40E-7	3.85E-5	7.02E-7	4.24E-6	3.83E-8	-1.54E-5	2.81E-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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