Environmental Profile

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

Ecochain v3.5.80

Product:	3003272 - PVC Access Plug GY 200
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	1.42E+0	8.08E-2	7.25E-2	1.57E+0	1.76E-2	7.28E-1	5.69E-3	-7.34E-1	1.59E+0
GWP-f	kg CO2 eq	1.61E+0	8.07E-2	5.50E-2	1.75E+0	1.76E-2	5.56E-1	5.68E-3	-8.09E-1	1.52E+0
GWP-b	kg CO2 eq	-1.91E-1	4.90E-5	1.75E-2	-1.73E-1	1.07E-5	1.72E-1	7.16E-6	7.56E-2	7.46E-2
GWP-luluc	kg CO2 eq	1.90E-3	2.86E-5	7.84E-5	2.00E-3	6.24E-6	2.18E-4	1.47E-7	-1.10E-3	1.13E-3
ODP	kg CFC11 eq	7.98E-7	1.86E-8	7.41E-9	8.24E-7	4.06E-9	6.06E-8	2.12E-10	-3.75E-7	5.14E-7
AP	mol H+ eq	7.85E-3	4.60E-4	4.18E-4	8.72E-3	1.00E-4	1.04E-3	5.14E-6	-3.26E-3	6.61E-3
EP-fw	kg P eq	7.32E-5	6.64E-7	1.35E-6	7.53E-5	1.45E-7	7.31E-6	6.66E-9	-3.46E-5	4.81E-5
EP-m	kg N eq	1.49E-3	1.65E-4	1.15E-4	1.77E-3	3.59E-5	2.58E-4	3.49E-6	-6.01E-4	1.46E-3
EP-T	mol N eq	1.61E-2	1.81E-3	1.51E-3	1.94E-2	3.96E-4	2.85E-3	2.05E-5	-6.51E-3	1.62E-2
POCP	kg NMVOC eq	5.22E-3	5.18E-4	3.40E-4	6.08E-3	1.13E-4	8.49E-4	7.06E-6	-2.17E-3	4.89E-3
ADP-mm	kg Sb eq	1.04E-3	2.09E-6	1.69E-6	1.04E-3	4.56E-7	4.10E-6	5.13E-9	-1.67E-5	1.03E-3
ADP-f	MJ	3.90E+1	1.24E+0	7.49E-1	4.09E+1	2.70E-1	2.79E+0	1.55E-2	-1.91E+1	2.50E+1
WDP	m3 depriv.	2.35E+0	3.80E-3	1.33E+0	3.68E+0	8.30E-4	1.10E-1	9.15E-5	-1.17E+0	2.63E+0
PM	disease inc.	6.38E-8	7.29E-9	5.75E-9	7.68E-8	1.59E-9	1.29E-8	1.06E-10	-2.76E-8	6.38E-8
IR	kBq U-235 eq	9.22E-2	5.42E-3	1.96E-3	9.96E-2	1.18E-3	9.90E-3	7.13E-5	-3.98E-2	7.09E-2
ETP-fw	CTUe	4.73E+1	1.01E+0	9.97E-1	4.93E+1	2.20E-1	2.16E+1	2.38E-1	-1.67E+1	5.46E+1
HTP-c	CTUh	1.32E-9	3.58E-11	6.44E-11	1.42E-9	7.82E-12	3.07E-10	4.19E-13	-4.81E-10	1.25E-9
HTP-nc	CTUh	4.02E-8	1.20E-9	1.85E-9	4.32E-8	2.62E-10	7.49E-9	4.58E-11	-1.53E-8	3.57E-8
SQP	Pt	2.71E+1	1.06E+0	7.14E+0	3.53E+1	2.31E-1	1.71E+0	3.96E-2	-2.60E+1	1.13E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	7.04E+0	1.78E-2	1.81E+0	8.87E+0	3.88E-3	2.01E-1	5.83E-4	-4.82E+0	4.25E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	7.04E+0	1.78E-2	1.81E+0	8.87E+0	3.88E-3	2.01E-1	5.83E-4	-4.82E+0	4.25E+0
PENRE	MJ	4.18E+1	1.32E+0	8.09E-1	4.39E+1	2.87E-1	2.97E+0	1.64E-2	-2.05E+1	2.66E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	4.18E+1	1.32E+0	8.09E-1	4.39E+1	2.87E-1	2.97E+0	1.64E-2	-2.05E+1	2.66E+1
PET	MJ	4.88E+1	1.33E+0	2.62E+0	5.28E+1	2.91E-1	3.17E+0	1.70E-2	-2.53E+1	3.09E+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	2.74E-2	1.40E-4	3.12E-2	5.87E-2	3.06E-5	3.10E-3	1.90E-5	-1.41E-2	4.78E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.57E-4	3.17E-6	9.69E-7	1.61E-4	6.92E-7	4.63E-6	1.87E-8	-1.69E-5	1.49E-4
NHWD	kg	2.31E-1	7.68E-2	7.13E-3	3.15E-1	1.68E-2	1.03E-1	6.85E-2	-6.75E-2	4.35E-1
RWD	kg	8.76E-5	8.43E-6	1.96E-6	9.80E-5	1.84E-6	1.07E-5	1.01E-7	-3.59E-5	7.47E-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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