Environmental Profile

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

Ecochain v3.5.80

Product:	4006018 - PVC Cover Female GY 250
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	7.46E-1	3.14E-2	3.95E-2	8.16E-1	1.17E-2	4.88E-1	3.67E-3	-4.19E-1	9.01E-1
GWP-f	kg CO2 eq	8.73E-1	3.14E-2	3.11E-2	9.36E-1	1.17E-2	3.21E-1	3.66E-3	-4.76E-1	7.96E-1
GWP-b	kg CO2 eq	-1.32E-1	1.82E-5	8.42E-3	-1.24E-1	7.13E-6	1.67E-1	4.52E-6	5.75E-2	1.00E-1
GWP-luluc	kg CO2 eq	4.60E-3	1.14E-5	3.04E-5	4.64E-3	4.16E-6	1.42E-4	1.01E-7	-7.53E-4	4.04E-3
ODP	kg CFC11 eq	4.32E-7	7.20E-9	4.06E-9	4.43E-7	2.71E-9	3.88E-8	1.38E-10	-2.20E-7	2.65E-7
AP	mol H+ eq	4.40E-3	2.04E-4	1.79E-4	4.78E-3	6.69E-5	6.84E-4	3.35E-6	-2.00E-3	3.53E-3
EP-fw	kg P eq	4.35E-5	2.54E-7	7.42E-7	4.45E-5	9.66E-8	4.75E-6	4.48E-9	-2.16E-5	2.78E-5
EP-m	kg N eq	8.17E-4	6.95E-5	5.22E-5	9.39E-4	2.39E-5	1.70E-4	2.01E-6	-3.75E-4	7.60E-4
EP-T	mol N eq	8.76E-3	7.67E-4	6.33E-4	1.02E-2	2.64E-4	1.88E-3	1.33E-5	-4.10E-3	8.21E-3
POCP	kg NMVOC eq	2.76E-3	2.17E-4	1.55E-4	3.13E-3	7.54E-5	5.63E-4	4.59E-6	-1.34E-3	2.43E-3
ADP-mm	kg Sb eq	1.03E-3	7.94E-7	6.26E-7	1.03E-3	3.04E-7	2.70E-6	3.40E-9	-9.33E-6	1.03E-3
ADP-f	MJ	2.11E+1	4.79E-1	4.33E-1	2.20E+1	1.80E-1	1.85E+0	1.00E-2	-1.12E+1	1.29E+1
WDP	m3 depriv.	1.32E+0	1.45E-3	8.66E-1	2.19E+0	5.53E-4	7.04E-2	8.30E-5	-7.02E-1	1.56E+0
PM	disease inc.	3.40E-8	2.78E-9	2.60E-9	3.93E-8	1.06E-9	8.61E-9	6.91E-11	-1.81E-8	3.10E-8
IR	kBq U-235 eq	5.04E-2	2.09E-3	1.23E-3	5.37E-2	7.88E-4	6.53E-3	4.58E-5	-2.42E-2	3.68E-2
ETP-fw	CTUe	3.07E+1	3.87E-1	4.20E-1	3.15E+1	1.46E-1	1.36E+1	1.49E-1	-1.10E+1	3.44E+1
HTP-c	CTUh	8.54E-10	1.40E-11	3.19E-11	9.00E-10	5.21E-12	2.21E-10	2.87E-13	-3.02E-10	8.24E-10
HTP-nc	CTUh	2.45E-8	4.58E-10	8.34E-10	2.58E-8	1.74E-10	4.88E-9	2.89E-11	-9.34E-9	2.15E-8
SQP	Pt	1.75E+1	4.01E-1	2.18E+0	2.00E+1	1.54E-1	1.15E+0	2.56E-2	-2.05E+1	9.10E-1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	3.32E+0	6.78E-3	5.55E-1	3.88E+0	2.59E-3	1.30E-1	3.60E-4	-3.71E+0	2.99E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	3.32E+0	6.78E-3	5.55E-1	3.88E+0	2.59E-3	1.30E-1	3.60E-4	-3.71E+0	2.99E-1
PENRE	MJ	2.27E+1	5.09E-1	4.68E-1	2.36E+1	1.91E-1	1.97E+0	1.07E-2	-1.20E+1	1.38E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	2.27E+1	5.09E-1	4.68E-1	2.36E+1	1.91E-1	1.97E+0	1.07E-2	-1.20E+1	1.38E+1
PET	MJ	2.60E+1	5.15E-1	1.02E+0	2.75E+1	1.94E-1	2.10E+0	1.10E-2	-1.57E+1	1.41E+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	1.58E-2	5.35E-5	2.03E-2	3.62E-2	2.04E-5	1.94E-3	1.22E-5	-8.78E-3	2.94E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.46E-4	1.21E-6	6.33E-7	1.48E-4	4.61E-7	3.06E-6	1.24E-8	-1.00E-5	1.41E-4
NHWD	kg	1.04E-1	2.90E-2	4.64E-3	1.38E-1	1.12E-2	6.87E-2	4.46E-2	-4.20E-2	2.20E-1
RWD	kg	4.47E-5	3.26E-6	1.28E-6	4.92E-5	1.23E-6	7.10E-6	6.52E-8	-2.19E-5	3.58E-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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