Environmental Profile

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

Ecochain v3.5.80

Product:	3003093 - PVC Coupler GY 250 S/S
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

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Results

Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	1.94E+0	8.49E-2	1.00E-1	2.12E+0	3.10E-2	1.71E+0	9.60E-3	-1.25E+0	2.63E+0
GWP-f	kg CO2 eq	2.64E+0	8.48E-2	7.94E-2	2.80E+0	3.10E-2	8.60E-1	9.60E-3	-1.51E+0	2.19E+0
GWP-b	kg CO2 eq	-7.05E-1	5.15E-5	2.07E-2	-6.84E-1	1.88E-5	8.51E-1	1.21E-5	2.65E-1	4.32E-1
GWP-luluc	kg CO2 eq	4.04E-3	3.00E-5	6.94E-5	4.13E-3	1.10E-5	3.88E-4	2.57E-7	-3.09E-3	1.45E-3
ODP	kg CFC11 eq	1.31E-6	1.96E-8	1.03E-8	1.34E-6	7.15E-9	1.08E-7	3.64E-10	-6.76E-7	7.80E-7
AP	mol H+ eq	1.31E-2	4.83E-4	4.24E-4	1.40E-2	1.77E-4	1.91E-3	8.83E-6	-6.78E-3	9.31E-3
EP-fw	kg P eq	1.33E-4	6.98E-7	1.88E-6	1.35E-4	2.55E-7	1.30E-5	1.16E-8	-7.57E-5	7.28E-5
EP-m	kg N eq	2.55E-3	1.73E-4	1.26E-4	2.85E-3	6.32E-5	4.81E-4	5.40E-6	-1.31E-3	2.09E-3
EP-T	mol N eq	2.74E-2	1.91E-3	1.48E-3	3.08E-2	6.96E-4	5.30E-3	3.52E-5	-1.44E-2	2.24E-2
POCP	kg NMVOC eq	8.54E-3	5.45E-4	3.73E-4	9.46E-3	1.99E-4	1.59E-3	1.21E-5	-4.68E-3	6.58E-3
ADP-mm	kg Sb eq	3.10E-3	2.20E-6	1.40E-6	3.10E-3	8.02E-7	7.55E-6	8.87E-9	-2.98E-5	3.08E-3
ADP-f	MJ	6.29E+1	1.30E+0	1.11E+0	6.53E+1	4.76E-1	5.09E+0	2.65E-2	-3.51E+1	3.58E+1
WDP	m3 depriv.	3.98E+0	4.00E-3	2.28E+0	6.27E+0	1.46E-3	1.93E-1	1.84E-4	-2.27E+0	4.20E+0
PM	disease inc.	1.05E-7	7.66E-9	6.25E-9	1.19E-7	2.80E-9	2.40E-8	1.82E-10	-6.96E-8	7.66E-8
IR	kBq U-235 eq	1.50E-1	5.69E-3	3.23E-3	1.59E-1	2.08E-3	1.82E-2	1.22E-4	-8.13E-2	9.77E-2
ETP-fw	CTUe	1.02E+2	1.06E+0	9.88E-1	1.04E+2	3.87E-1	3.76E+1	4.10E-1	-4.14E+1	1.01E+2
HTP-c	CTUh	2.54E-9	3.76E-11	7.90E-11	2.65E-9	1.38E-11	5.84E-10	7.34E-13	-1.10E-9	2.15E-9
HTP-nc	CTUh	7.43E-8	1.26E-9	2.00E-9	7.75E-8	4.61E-10	1.34E-8	7.89E-11	-3.11E-8	6.03E-8
SQP	Pt	8.03E+1	1.11E+0	4.44E+0	8.58E+1	4.07E-1	3.13E+0	6.77E-2	-1.04E+2	-1.44E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.41E+1	1.87E-2	1.13E+0	1.53E+1	6.83E-3	3.57E-1	9.72E-4	-1.79E+1	-2.31E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.41E+1	1.87E-2	1.13E+0	1.53E+1	6.83E-3	3.57E-1	9.72E-4	-1.79E+1	-2.31E+0
PENRE	MJ	6.74E+1	1.38E+0	1.20E+0	7.00E+1	5.05E-1	5.41E+0	2.81E-2	-3.77E+1	3.83E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	6.74E+1	1.38E+0	1.20E+0	7.00E+1	5.05E-1	5.41E+0	2.81E-2	-3.77E+1	3.83E+1
PET	MJ	8.16E+1	1.40E+0	2.34E+0	8.53E+1	5.12E-1	5.77E+0	2.91E-2	-5.56E+1	3.60E+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	4.73E-2	1.47E-4	5.35E-2	1.01E-1	5.39E-5	5.32E-3	3.24E-5	-3.04E-2	7.60E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	4.40E-4	3.33E-6	1.67E-6	4.45E-4	1.22E-6	8.52E-6	3.24E-8	-3.30E-5	4.22E-4
NHWD	kg	3.20E-1	8.07E-2	1.22E-2	4.12E-1	2.95E-2	1.87E-1	1.18E-1	-1.49E-1	5.99E-1
RWD	kg	1.33E-4	8.86E-6	3.38E-6	1.45E-4	3.24E-6	1.99E-5	1.72E-7	-7.42E-5	9.42E-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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