Environmental Profile

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

Ecochain v3.5.80

Ecochain

Product:	3026001 - PVC Coupler GY 50 S/S 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

WAVIN An Orbia business.

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	6.86E-2	2.47E-3	3.28E-3	7.44E-2	9.75E-4	6.05E-2	2.99E-4	-4.00E-2	9.61E-2
GWP-f	kg CO2 eq	9.07E-2	2.47E-3	2.53E-3	9.57E-2	9.74E-4	3.23E-2	2.99E-4	-5.17E-2	7.76E-2
GWP-b	kg CO2 eq	-2.22E-2	1.50E-6	7.42E-4	-2.14E-2	5.91E-7	2.81E-2	3.70E-7	1.18E-2	1.85E-2
GWP-luluc	kg CO2 eq	1.49E-4	8.75E-7	3.01E-6	1.53E-4	3.45E-7	1.20E-5	8.24E-9	-1.21E-4	4.42E-5
ODP	kg CFC11 eq	4.09E-8	5.70E-10	3.36E-10	4.18E-8	2.24E-10	3.32E-9	1.13E-11	-2.14E-8	2.40E-8
AP	mol H+ eq	4.52E-4	1.41E-5	1.68E-5	4.83E-4	5.55E-6	6.10E-5	2.76E-7	-2.28E-4	3.21E-4
EP-fw	kg P eq	4.44E-6	2.03E-8	6.14E-8	4.52E-6	8.01E-9	4.01E-7	3.66E-10	-2.65E-6	2.28E-6
EP-m	kg N eq	8.99E-5	5.04E-6	4.74E-6	9.97E-5	1.99E-6	1.58E-5	1.65E-7	-4.51E-5	7.25E-5
EP-T	mol N eq	9.62E-4	5.55E-5	6.00E-5	1.08E-3	2.19E-5	1.74E-4	1.10E-6	-4.99E-4	7.76E-4
POCP	kg NMVOC eq	3.02E-4	1.59E-5	1.40E-5	3.32E-4	6.25E-6	5.22E-5	3.77E-7	-1.59E-4	2.32E-4
ADP-mm	kg Sb eq	9.83E-5	6.40E-8	6.36E-8	9.84E-5	2.52E-8	2.41E-7	2.79E-10	-9.40E-7	9.78E-5
ADP-f	MJ	2.18E+0	3.79E-2	3.49E-2	2.25E+0	1.50E-2	1.61E-1	8.28E-4	-1.17E+0	1.26E+0
WDP	m3 depriv.	1.25E-1	1.16E-4	6.62E-2	1.91E-1	4.59E-5	5.87E-3	6.62E-6	-7.53E-2	1.22E-1
PM	disease inc.	3.97E-9	2.23E-10	2.36E-10	4.43E-9	8.79E-11	7.78E-10	5.69E-12	-2.50E-9	2.80E-9
IR	kBq U-235 eq	5.15E-3	1.66E-4	9.59E-5	5.41E-3	6.53E-5	5.76E-4	3.77E-6	-2.74E-3	3.31E-3
ETP-fw	CTUe	3.70E+0	3.08E-2	3.97E-2	3.77E+0	1.21E-2	1.13E+0	1.22E-2	-1.56E+0	3.37E+0
HTP-c	CTUh	8.14E-11	1.10E-12	2.77E-12	8.53E-11	4.32E-13	1.98E-11	2.34E-14	-3.63E-11	6.93E-11
HTP-nc	CTUh	2.37E-9	3.67E-11	7.61E-11	2.48E-9	1.45E-11	4.20E-10	2.37E-12	-1.03E-9	1.89E-9
SQP	Pt	2.68E+0	3.25E-2	2.48E-1	2.96E+0	1.28E-2	1.00E-1	2.10E-3	-3.88E+0	-8.04E-1

Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	4.74E-1	5.44E-4	6.31E-2	5.38E-1	2.14E-4	1.10E-2	2.96E-5	-6.75E-1	-1.26E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	4.74E-1	5.44E-4	6.31E-2	5.38E-1	2.14E-4	1.10E-2	2.96E-5	-6.75E-1	-1.26E-1
PENRE	MJ	2.33E+0	4.03E-2	3.77E-2	2.41E+0	1.59E-2	1.72E-1	8.78E-4	-1.26E+0	1.34E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	2.33E+0	4.03E-2	3.77E-2	2.41E+0	1.59E-2	1.72E-1	8.78E-4	-1.26E+0	1.34E+0
PET	MJ	2.81E+0	4.08E-2	1.01E-1	2.95E+0	1.61E-2	1.83E-1	9.08E-4	-1.93E+0	1.22E+0
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-3	4.29E-6	1.55E-3	3.14E-3	1.69E-6	1.64E-4	1.01E-6	-1.08E-3	2.23E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.40E-5	9.70E-8	4.84E-8	1.41E-5	3.82E-8	2.75E-7	1.02E-9	-1.13E-6	1.33E-5
NHWD	kg	1.08E-2	2.35E-3	3.55E-4	1.35E-2	9.27E-4	6.26E-3	3.70E-3	-4.89E-3	1.95E-2
RWD	kg	4.82E-6	2.58E-7	9.79E-8	5.18E-6	1.02E-7	6.39E-7	5.37E-9	-2.52E-6	3.41E-6
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