Environmental Profile

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

Ecochain v3.5.80

Product:	3025999 - PVC Coupler GY 100 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

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	2.91E-1	1.03E-2	1.18E-2	3.13E-1	3.90E-3	1.79E-1	1.21E-3	-1.65E-1	3.32E-1
GWP-f	kg CO2 eq	3.33E-1	1.03E-2	9.45E-3	3.53E-1	3.90E-3	1.23E-1	1.21E-3	-1.88E-1	2.93E-1
GWP-b	kg CO2 eq	-4.30E-2	6.27E-6	2.34E-3	-4.07E-2	2.37E-6	5.62E-2	1.51E-6	2.31E-2	3.86E-2
GWP-luluc	kg CO2 eq	4.39E-4	3.65E-6	7.08E-6	4.50E-4	1.38E-6	4.81E-5	3.28E-8	-2.95E-4	2.04E-4
ODP	kg CFC11 eq	1.62E-7	2.38E-9	1.21E-9	1.66E-7	8.98E-10	1.33E-8	4.57E-11	-8.43E-8	9.56E-8
AP	mol H+ eq	1.64E-3	5.88E-5	4.56E-5	1.74E-3	2.22E-5	2.34E-4	1.11E-6	-7.70E-4	1.23E-3
EP-fw	kg P eq	1.62E-5	8.50E-8	2.22E-7	1.65E-5	3.21E-8	1.61E-6	1.47E-9	-8.34E-6	9.81E-6
EP-m	kg N eq	3.06E-4	2.10E-5	1.39E-5	3.41E-4	7.94E-6	5.87E-5	6.74E-7	-1.45E-4	2.63E-4
EP-T	mol N eq	3.32E-3	2.32E-4	1.58E-4	3.71E-3	8.75E-5	6.46E-4	4.42E-6	-1.58E-3	2.87E-3
POCP	kg NMVOC eq	1.06E-3	6.63E-5	4.11E-5	1.17E-3	2.50E-5	1.93E-4	1.52E-6	-5.18E-4	8.67E-4
ADP-mm	kg Sb eq	3.93E-4	2.67E-7	1.39E-7	3.94E-4	1.01E-7	9.20E-7	1.12E-9	-3.56E-6	3.91E-4
ADP-f	MJ	8.13E+0	1.59E-1	1.33E-1	8.42E+0	5.98E-2	6.26E-1	3.33E-3	-4.37E+0	4.74E+0
WDP	m3 depriv.	5.04E-1	4.86E-4	2.82E-1	7.86E-1	1.84E-4	2.39E-2	2.47E-5	-2.69E-1	5.41E-1
PM	disease inc.	1.24E-8	9.32E-10	6.88E-10	1.40E-8	3.52E-10	2.93E-9	2.29E-11	-6.98E-9	1.04E-8
IR	kBq U-235 eq	1.87E-2	6.93E-4	3.96E-4	1.97E-2	2.61E-4	2.22E-3	1.52E-5	-9.32E-3	1.29E-2
ETP-fw	CTUe	1.16E+1	1.29E-1	1.05E-1	1.19E+1	4.86E-2	4.64E+0	5.08E-2	-4.26E+0	1.24E+1
HTP-c	CTUh	2.99E-10	4.58E-12	9.03E-12	3.13E-10	1.73E-12	7.41E-11	9.33E-14	-1.16E-10	2.73E-10
HTP-nc	CTUh	9.17E-9	1.53E-10	2.20E-10	9.54E-9	5.79E-11	1.66E-9	9.79E-12	-3.57E-9	7.70E-9
SQP	Pt	5.90E+0	1.36E-1	3.71E-1	6.40E+0	5.12E-2	3.87E-1	8.50E-3	-7.96E+0	-1.11E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.15E+0	2.27E-3	9.51E-2	1.24E+0	8.58E-4	4.42E-2	1.21E-4	-1.44E+0	-1.47E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.15E+0	2.27E-3	9.51E-2	1.24E+0	8.58E-4	4.42E-2	1.21E-4	-1.44E+0	-1.47E-1
PENRE	MJ	8.72E+0	1.68E-1	1.44E-1	9.03E+0	6.35E-2	6.66E-1	3.54E-3	-4.71E+0	5.06E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	8.72E+0	1.68E-1	1.44E-1	9.03E+0	6.35E-2	6.66E-1	3.54E-3	-4.71E+0	5.06E+0
PET	MJ	9.86E+0	1.71E-1	2.39E-1	1.03E+1	6.43E-2	7.10E-1	3.66E-3	-6.14E+0	4.91E+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	6.05E-3	1.79E-5	6.59E-3	1.27E-2	6.77E-6	6.60E-4	4.07E-6	-3.39E-3	9.94E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	5.54E-5	4.05E-7	2.06E-7	5.60E-5	1.53E-7	1.04E-6	4.08E-9	-3.95E-6	5.33E-5
NHWD	kg	3.76E-2	9.82E-3	1.51E-3	4.90E-2	3.71E-3	2.37E-2	1.48E-2	-1.61E-2	7.51E-2
RWD	kg	1.66E-5	1.08E-6	4.17E-7	1.81E-5	4.07E-7	2.41E-6	2.17E-8	-8.43E-6	1.25E-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

Ecochain Technologies BV
H.J.E. Wenckebachweg 123, 1096 AM Amsterdam, The Netherlands
https://www.ecochain.com
+31 20 3035 777