Environmental Profile

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

Ecochain v3.5.80

Product:	3026002 - PVC Coupler GY 40 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	4.96E-2	1.90E-3	2.31E-3	5.38E-2	6.85E-4	5.36E-2	2.13E-4	-2.82E-2	8.01E-2
GWP-f	kg CO2 eq	7.18E-2	1.90E-3	1.79E-3	7.55E-2	6.84E-4	2.49E-2	2.13E-4	-4.14E-2	6.00E-2
GWP-b	kg CO2 eq	-2.24E-2	1.15E-6	5.23E-4	-2.19E-2	4.16E-7	2.87E-2	2.64E-7	1.32E-2	2.01E-2
GWP-luluc	kg CO2 eq	1.35E-4	6.71E-7	2.12E-6	1.38E-4	2.42E-7	8.68E-6	5.81E-9	-1.23E-4	2.41E-5
ODP	kg CFC11 eq	3.04E-8	4.37E-10	2.37E-10	3.11E-8	1.58E-10	2.45E-9	8.01E-12	-1.58E-8	1.79E-8
AP	mol H+ eq	3.56E-4	1.08E-5	1.18E-5	3.79E-4	3.90E-6	4.62E-5	1.95E-7	-1.92E-4	2.37E-4
EP-fw	kg P eq	3.49E-6	1.56E-8	4.33E-8	3.55E-6	5.63E-9	2.91E-7	2.59E-10	-2.35E-6	1.49E-6
EP-m	kg N eq	7.43E-5	3.87E-6	3.34E-6	8.15E-5	1.39E-6	1.23E-5	1.18E-7	-3.92E-5	5.61E-5
EP-T	mol N eq	7.83E-4	4.26E-5	4.23E-5	8.68E-4	1.54E-5	1.35E-4	7.76E-7	-4.38E-4	5.82E-4
POCP	kg NMVOC eq	2.44E-4	1.22E-5	9.88E-6	2.66E-4	4.39E-6	4.05E-5	2.67E-7	-1.36E-4	1.75E-4
ADP-mm	kg Sb eq	4.97E-5	4.91E-8	4.47E-8	4.98E-5	1.77E-8	1.82E-7	1.97E-10	-7.19E-7	4.93E-5
ADP-f	MJ	1.70E+0	2.91E-2	2.46E-2	1.76E+0	1.05E-2	1.19E-1	5.85E-4	-9.10E-1	9.76E-1
WDP	m3 depriv.	9.21E-2	8.94E-5	4.67E-2	1.39E-1	3.22E-5	4.23E-3	4.57E-6	-6.09E-2	8.23E-2
PM	disease inc.	3.45E-9	1.71E-10	1.66E-10	3.79E-9	6.18E-11	5.91E-10	4.02E-12	-2.36E-9	2.09E-9
IR	kBq U-235 eq	4.00E-3	1.27E-4	6.77E-5	4.20E-3	4.59E-5	4.32E-4	2.67E-6	-2.30E-3	2.38E-3
ETP-fw	CTUe	3.11E+0	2.36E-2	2.79E-2	3.16E+0	8.53E-3	8.22E-1	8.79E-3	-1.50E+0	2.50E+0
HTP-c	CTUh	5.95E-11	8.41E-13	1.95E-12	6.23E-11	3.04E-13	1.49E-11	1.65E-14	-3.11E-11	4.65E-11
HTP-nc	CTUh	1.67E-9	2.82E-11	5.36E-11	1.75E-9	1.02E-11	3.09E-10	1.70E-12	-8.53E-10	1.22E-9
SQP	Pt	2.65E+0	2.49E-2	1.74E-1	2.85E+0	8.99E-3	7.38E-2	1.49E-3	-4.09E+0	-1.15E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	4.58E-1	4.18E-4	4.43E-2	5.03E-1	1.51E-4	8.00E-3	2.11E-5	-7.07E-1	-1.96E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	4.58E-1	4.18E-4	4.43E-2	5.03E-1	1.51E-4	8.00E-3	2.11E-5	-7.07E-1	-1.96E-1
PENRE	MJ	1.82E+0	3.09E-2	2.66E-2	1.88E+0	1.12E-2	1.27E-1	6.21E-4	-9.79E-1	1.04E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.82E+0	3.09E-2	2.66E-2	1.88E+0	1.12E-2	1.27E-1	6.21E-4	-9.79E-1	1.04E+0
PET	MJ	2.28E+0	3.13E-2	7.09E-2	2.39E+0	1.13E-2	1.35E-1	6.42E-4	-1.69E+0	8.46E-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	1.20E-3	3.29E-6	1.10E-3	2.30E-3	1.19E-6	1.19E-4	7.12E-7	-9.57E-4	1.47E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	7.53E-6	7.45E-8	3.42E-8	7.64E-6	2.69E-8	2.09E-7	7.18E-10	-9.19E-7	6.96E-6
NHWD	kg	8.86E-3	1.80E-3	2.51E-4	1.09E-2	6.51E-4	4.71E-3	2.60E-3	-4.13E-3	1.47E-2
RWD	kg	3.86E-6	1.98E-7	6.91E-8	4.13E-6	7.14E-8	4.86E-7	3.80E-9	-2.14E-6	2.55E-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

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