

Environmental Profile

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

Ecochain v3.5.80



Product: 3025731 - PVC Expansion Coupler GY 160 SC/SP BC
 Unit: 1 Piece
 Manufacturer: Wavin - FR - Varennes

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



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.

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]

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Results

Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	1.05E+0	3.95E-2	5.25E-2	1.14E+0	1.41E-2	6.75E-1	4.89E-3	-6.05E-1	1.23E+0
GWP-f	kg CO2 eq	1.20E+0	3.94E-2	4.07E-2	1.28E+0	1.41E-2	4.89E-1	4.89E-3	-6.60E-1	1.13E+0
GWP-b	kg CO2 eq	-1.52E-1	2.39E-5	1.18E-2	-1.40E-1	8.58E-6	1.86E-1	5.79E-6	5.63E-2	1.02E-1
GWP-luluc	kg CO2 eq	1.38E-3	1.40E-5	4.70E-5	1.44E-3	5.00E-6	1.60E-4	1.22E-7	-8.39E-4	7.65E-4
ODP	kg CFC11 eq	5.40E-7	9.09E-9	5.38E-9	5.55E-7	3.26E-9	4.30E-8	1.72E-10	-2.71E-7	3.31E-7
AP	mol H+ eq	5.86E-3	2.25E-4	2.64E-4	6.35E-3	8.05E-5	7.83E-4	4.19E-6	-2.56E-3	4.65E-3
EP-fw	kg P eq	5.40E-5	3.24E-7	9.84E-7	5.53E-5	1.16E-7	5.32E-6	5.50E-9	-2.58E-5	3.49E-5
EP-m	kg N eq	1.06E-3	8.04E-5	7.50E-5	1.21E-3	2.88E-5	1.98E-4	2.99E-6	-4.77E-4	9.65E-4
EP-T	mol N eq	1.16E-2	8.86E-4	9.44E-4	1.34E-2	3.17E-4	2.18E-3	1.67E-5	-5.20E-3	1.07E-2
POCP	kg NMVOC eq	3.92E-3	2.53E-4	2.22E-4	4.39E-3	9.07E-5	6.51E-4	5.81E-6	-1.77E-3	3.37E-3
ADP-mm	kg Sb eq	1.28E-3	1.02E-6	9.92E-7	1.28E-3	3.66E-7	3.05E-6	4.21E-9	-1.31E-5	1.27E-3
ADP-f	MJ	3.07E+1	6.05E-1	5.62E-1	3.19E+1	2.17E-1	2.11E+0	1.26E-2	-1.58E+1	1.84E+1
WDP	m3 depriv.	1.70E+0	1.86E-3	1.07E+0	2.77E+0	6.66E-4	7.96E-2	8.51E-5	-8.62E-1	1.99E+0
PM	disease inc.	4.69E-8	3.56E-9	3.74E-9	5.42E-8	1.28E-9	9.83E-9	8.65E-11	-2.24E-8	4.30E-8
IR	kBq U-235 eq	6.84E-2	2.65E-3	1.55E-3	7.26E-2	9.48E-4	7.37E-3	5.79E-5	-2.98E-2	5.11E-2
ETP-fw	CTUe	3.69E+1	4.91E-1	6.25E-1	3.80E+1	1.76E-1	1.51E+1	1.65E-1	-1.26E+1	4.09E+1
HTP-c	CTUh	1.01E-9	1.75E-11	4.42E-11	1.08E-9	6.27E-12	2.43E-10	3.45E-13	-3.76E-10	9.49E-10
HTP-nc	CTUh	3.05E-8	5.86E-10	1.20E-9	3.22E-8	2.10E-10	5.49E-9	3.26E-11	-1.14E-8	2.66E-8
SQP	Pt	1.98E+1	5.18E-1	3.82E+0	2.42E+1	1.86E-1	1.32E+0	3.21E-2	-2.34E+1	2.34E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	3.80E+0	8.68E-3	9.71E-1	4.78E+0	3.11E-3	1.47E-1	4.71E-4	-4.20E+0	7.33E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	3.80E+0	8.68E-3	9.71E-1	4.78E+0	3.11E-3	1.47E-1	4.71E-4	-4.20E+0	7.33E-1
PENRE	MJ	3.29E+1	6.43E-1	6.07E-1	3.42E+1	2.30E-1	2.24E+0	1.34E-2	-1.71E+1	1.96E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	3.29E+1	6.43E-1	6.07E-1	3.42E+1	2.30E-1	2.24E+0	1.34E-2	-1.71E+1	1.96E+1
PET	MJ	3.67E+1	6.51E-1	1.58E+0	3.89E+1	2.33E-1	2.39E+0	1.38E-2	-2.12E+1	2.03E+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	2.09E-2	6.85E-5	2.52E-2	4.62E-2	2.45E-5	2.30E-3	1.54E-5	-1.07E-2	3.79E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.75E-4	1.55E-6	7.86E-7	1.78E-4	5.55E-7	3.54E-6	1.53E-8	-1.31E-5	1.69E-4
NHWD	kg	1.28E-1	3.75E-2	5.77E-3	1.71E-1	1.34E-2	8.08E-2	5.58E-2	-5.20E-2	2.69E-1
RWD	kg	6.49E-5	4.12E-6	1.59E-6	7.06E-5	1.48E-6	8.06E-6	8.19E-8	-2.71E-5	5.31E-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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