Environmental Profile

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

Ecochain v3.5.80

Product:	3025802 - PVC Expansion Coupler GY 75 SC/SP 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

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Results

Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	4.20E-1	1.61E-2	2.03E-2	4.56E-1	5.51E-3	2.80E-1	1.77E-3	-2.07E-1	5.37E-1
GWP-f	kg CO2 eq	5.40E-1	1.61E-2	1.58E-2	5.71E-1	5.50E-3	1.55E-1	1.76E-3	-2.80E-1	4.54E-1
GWP-b	kg CO2 eq	-1.21E-1	9.75E-6	4.58E-3	-1.16E-1	3.34E-6	1.24E-1	2.15E-6	7.37E-2	8.19E-2
GWP-luluc	kg CO2 eq	8.86E-4	5.68E-6	1.83E-5	9.10E-4	1.95E-6	6.71E-5	4.53E-8	-7.08E-4	2.71E-4
ODP	kg CFC11 eq	2.30E-7	3.70E-9	2.08E-9	2.35E-7	1.27E-9	1.85E-8	6.45E-11	-1.14E-7	1.41E-7
AP	mol H+ eq	2.66E-3	9.14E-5	1.03E-4	2.85E-3	3.13E-5	3.40E-4	1.56E-6	-1.28E-3	1.94E-3
EP-fw	kg P eq	2.56E-5	1.32E-7	3.81E-7	2.61E-5	4.53E-8	2.24E-6	2.04E-9	-1.51E-5	1.33E-5
EP-m	kg N eq	5.31E-4	3.27E-5	2.92E-5	5.92E-4	1.12E-5	8.78E-5	9.64E-7	-2.50E-4	4.42E-4
EP-T	mol N eq	5.67E-3	3.61E-4	3.68E-4	6.40E-3	1.24E-4	9.66E-4	6.25E-6	-2.77E-3	4.72E-3
POCP	kg NMVOC eq	1.80E-3	1.03E-4	8.63E-5	1.99E-3	3.53E-5	2.90E-4	2.16E-6	-8.81E-4	1.44E-3
ADP-mm	kg Sb eq	4.55E-4	4.15E-7	3.87E-7	4.56E-4	1.42E-7	1.35E-6	1.57E-9	-5.16E-6	4.53E-4
ADP-f	MJ	1.31E+1	2.46E-1	2.17E-1	1.35E+1	8.44E-2	9.03E-1	4.71E-3	-6.56E+0	7.94E+0
WDP	m3 depriv.	7.16E-1	7.56E-4	4.15E-1	1.13E+0	2.59E-4	3.28E-2	3.10E-5	-4.26E-1	7.39E-1
PM	disease inc.	2.36E-8	1.45E-9	1.45E-9	2.65E-8	4.97E-10	4.36E-9	3.24E-11	-1.42E-8	1.72E-8
IR	kBq U-235 eq	2.95E-2	1.08E-3	6.00E-4	3.12E-2	3.69E-4	3.22E-3	2.16E-5	-1.53E-2	1.95E-2
ETP-fw	CTUe	2.14E+1	2.00E-1	2.43E-1	2.18E+1	6.86E-2	6.31E+0	6.82E-2	-9.05E+0	1.92E+1
HTP-c	CTUh	4.56E-10	7.12E-12	1.71E-11	4.80E-10	2.44E-12	1.05E-10	1.28E-13	-1.91E-10	3.96E-10
HTP-nc	CTUh	1.32E-8	2.39E-10	4.68E-10	1.39E-8	8.17E-11	2.32E-9	1.32E-11	-5.72E-9	1.06E-8
SQP	Pt	1.52E+1	2.11E-1	1.50E+0	1.69E+1	7.22E-2	5.60E-1	1.20E-2	-2.05E+1	-2.93E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	2.95E+0	3.54E-3	3.80E-1	3.34E+0	1.21E-3	6.16E-2	1.74E-4	-3.64E+0	-2.38E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	2.95E+0	3.54E-3	3.80E-1	3.34E+0	1.21E-3	6.16E-2	1.74E-4	-3.64E+0	-2.38E-1
PENRE	MJ	1.40E+1	2.62E-1	2.35E-1	1.45E+1	8.97E-2	9.61E-1	5.00E-3	-7.05E+0	8.49E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.40E+1	2.62E-1	2.35E-1	1.45E+1	8.97E-2	9.61E-1	5.00E-3	-7.05E+0	8.49E+0
PET	MJ	1.69E+1	2.65E-1	6.15E-1	1.78E+1	9.09E-2	1.02E+0	5.17E-3	-1.07E+1	8.26E+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	9.18E-3	2.79E-5	9.72E-3	1.89E-2	9.56E-6	9.11E-4	5.76E-6	-6.25E-3	1.36E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	6.55E-5	6.30E-7	3.03E-7	6.65E-5	2.16E-7	1.54E-6	5.73E-9	-5.79E-6	6.24E-5
NHWD	kg	6.44E-2	1.53E-2	2.23E-3	8.19E-2	5.23E-3	3.38E-2	2.09E-2	-2.62E-2	1.16E-1
RWD	kg	2.77E-5	1.68E-6	6.13E-7	3.00E-5	5.74E-7	3.58E-6	3.06E-8	-1.40E-5	2.02E-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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