

Environmental Profile

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

Ecochain v3.5.80



Product: 3026123 - PVC/Abestos Cement Connector 160x150
 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	1.06E+0	3.53E-2	4.88E-2	1.14E+0	1.38E-2	7.13E-1	4.69E-3	-6.04E-1	1.27E+0
GWP-f	kg CO2 eq	1.22E+0	3.52E-2	3.80E-2	1.29E+0	1.38E-2	5.22E-1	4.69E-3	-6.52E-1	1.18E+0
GWP-b	kg CO2 eq	-1.61E-1	2.14E-5	1.08E-2	-1.50E-1	8.36E-6	1.91E-1	5.71E-6	4.88E-2	8.95E-2
GWP-luluc	kg CO2 eq	1.41E-3	1.25E-5	4.15E-5	1.47E-3	4.87E-6	1.61E-4	1.22E-7	-8.00E-4	8.33E-4
ODP	kg CFC11 eq	5.76E-7	8.12E-9	5.00E-9	5.89E-7	3.17E-9	4.44E-8	1.70E-10	-2.85E-7	3.52E-7
AP	mol H+ eq	6.10E-3	2.01E-4	2.37E-4	6.53E-3	7.84E-5	7.88E-4	4.15E-6	-2.50E-3	4.90E-3
EP-fw	kg P eq	5.70E-5	2.90E-7	9.15E-7	5.82E-5	1.13E-7	5.40E-6	5.47E-9	-2.57E-5	3.80E-5
EP-m	kg N eq	1.09E-3	7.18E-5	6.79E-5	1.23E-3	2.80E-5	1.98E-4	3.09E-6	-4.68E-4	9.91E-4
EP-T	mol N eq	1.20E-2	7.91E-4	8.44E-4	1.36E-2	3.09E-4	2.18E-3	1.65E-5	-5.08E-3	1.10E-2
POCP	kg NMVOC eq	4.05E-3	2.26E-4	2.01E-4	4.48E-3	8.84E-5	6.48E-4	5.71E-6	-1.71E-3	3.51E-3
ADP-mm	kg Sb eq	1.34E-3	9.11E-7	8.69E-7	1.34E-3	3.56E-7	3.05E-6	4.17E-9	-1.38E-5	1.33E-3
ADP-f	MJ	3.03E+1	5.41E-1	5.27E-1	3.13E+1	2.11E-1	2.09E+0	1.24E-2	-1.51E+1	1.86E+1
WDP	m3 depriv.	1.77E+0	1.66E-3	1.02E+0	2.79E+0	6.48E-4	8.18E-2	8.69E-5	-8.64E-1	2.01E+0
PM	disease inc.	4.91E-8	3.18E-9	3.38E-9	5.56E-8	1.24E-9	9.69E-9	8.55E-11	-2.13E-8	4.53E-8
IR	kBq U-235 eq	7.35E-2	2.36E-3	1.47E-3	7.74E-2	9.23E-4	7.38E-3	5.72E-5	-3.02E-2	5.56E-2
ETP-fw	CTUe	3.82E+1	4.39E-1	5.59E-1	3.92E+1	1.72E-1	1.58E+1	1.73E-1	-1.23E+1	4.30E+1
HTP-c	CTUh	1.09E-9	1.56E-11	4.05E-11	1.15E-9	6.10E-12	2.40E-10	3.45E-13	-3.82E-10	1.01E-9
HTP-nc	CTUh	3.19E-8	5.23E-10	1.09E-9	3.35E-8	2.04E-10	5.60E-9	3.40E-11	-1.15E-8	2.78E-8
SQP	Pt	2.06E+1	4.63E-1	3.24E+0	2.43E+1	1.81E-1	1.29E+0	3.17E-2	-2.26E+1	3.18E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	3.92E+0	7.76E-3	8.25E-1	4.76E+0	3.03E-3	1.48E-1	4.66E-4	-4.05E+0	8.62E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	3.92E+0	7.76E-3	8.25E-1	4.76E+0	3.03E-3	1.48E-1	4.66E-4	-4.05E+0	8.62E-1
PENRE	MJ	3.24E+1	5.74E-1	5.69E-1	3.36E+1	2.24E-1	2.23E+0	1.32E-2	-1.63E+1	1.98E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	3.24E+1	5.74E-1	5.69E-1	3.36E+1	2.24E-1	2.23E+0	1.32E-2	-1.63E+1	1.98E+1
PET	MJ	3.64E+1	5.82E-1	1.39E+0	3.83E+1	2.27E-1	2.38E+0	1.37E-2	-2.03E+1	2.06E+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	2.23E-2	6.12E-5	2.40E-2	4.63E-2	2.39E-5	2.40E-3	1.52E-5	-1.04E-2	3.83E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.83E-4	1.38E-6	7.49E-7	1.85E-4	5.40E-7	3.53E-6	1.52E-8	-1.37E-5	1.75E-4
NHWD	kg	1.34E-1	3.35E-2	5.49E-3	1.73E-1	1.31E-2	8.01E-2	5.51E-2	-5.28E-2	2.69E-1
RWD	kg	7.09E-5	3.68E-6	1.51E-6	7.61E-5	1.44E-6	7.99E-6	8.09E-8	-2.75E-5	5.81E-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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