

Environmental Profile

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

Ecochain v3.5.80



Product: 3026065 - PVC Bend 45° GY 80 S/S 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	☑	☑	☑	☑									

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	2.81E-1	9.70E-3	1.41E-2	3.05E-1	3.98E-3	2.01E-1	1.23E-3	-1.50E-1	3.60E-1
GWP-f	kg CO2 eq	3.45E-1	9.69E-3	1.09E-2	3.66E-1	3.97E-3	1.11E-1	1.23E-3	-1.97E-1	2.85E-1
GWP-b	kg CO2 eq	-6.50E-2	5.89E-6	3.16E-3	-6.19E-2	2.41E-6	8.97E-2	1.55E-6	4.72E-2	7.50E-2
GWP-luluc	kg CO2 eq	5.70E-4	3.43E-6	1.26E-5	5.86E-4	1.41E-6	5.01E-5	3.28E-8	-4.76E-4	1.62E-4
ODP	kg CFC11 eq	1.70E-7	2.23E-9	1.44E-9	1.74E-7	9.16E-10	1.40E-8	4.66E-11	-8.71E-8	1.02E-7
AP	mol H+ eq	1.70E-3	5.52E-5	7.09E-5	1.83E-3	2.26E-5	2.50E-4	1.13E-6	-9.08E-4	1.19E-3
EP-fw	kg P eq	1.74E-5	7.98E-8	2.64E-7	1.77E-5	3.27E-8	1.68E-6	1.48E-9	-1.07E-5	8.77E-6
EP-m	kg N eq	3.39E-4	1.98E-5	2.01E-5	3.78E-4	8.10E-6	6.37E-5	6.92E-7	-1.76E-4	2.75E-4
EP-T	mol N eq	3.60E-3	2.18E-4	2.54E-4	4.07E-3	8.93E-5	7.01E-4	4.51E-6	-1.94E-3	2.93E-3
POCP	kg NMVOC eq	1.10E-3	6.22E-5	5.96E-5	1.22E-3	2.55E-5	2.10E-4	1.55E-6	-6.15E-4	8.47E-4
ADP-mm	kg Sb eq	3.45E-4	2.51E-7	2.66E-7	3.46E-4	1.03E-7	9.92E-7	1.13E-9	-3.84E-6	3.43E-4
ADP-f	MJ	8.21E+0	1.49E-1	1.51E-1	8.51E+0	6.10E-2	6.63E-1	3.40E-3	-4.55E+0	4.68E+0
WDP	m3 depriv.	5.12E-1	4.57E-4	2.88E-1	8.01E-1	1.87E-4	2.48E-2	2.31E-5	-3.09E-1	5.17E-1
PM	disease inc.	1.41E-8	8.75E-10	1.00E-9	1.60E-8	3.59E-10	3.16E-9	2.34E-11	-9.71E-9	9.81E-9
IR	kBq U-235 eq	1.96E-2	6.50E-4	4.16E-4	2.07E-2	2.67E-4	2.37E-3	1.56E-5	-1.11E-2	1.23E-2
ETP-fw	CTUe	1.41E+1	1.21E-1	1.68E-1	1.44E+1	4.95E-2	4.84E+0	5.26E-2	-6.21E+0	1.32E+1
HTP-c	CTUh	3.09E-10	4.30E-12	1.19E-11	3.25E-10	1.76E-12	7.61E-11	9.36E-14	-1.39E-10	2.64E-10
HTP-nc	CTUh	9.28E-9	1.44E-10	3.23E-10	9.75E-9	5.91E-11	1.73E-9	1.01E-11	-4.17E-9	7.38E-9
SQP	Pt	8.70E+0	1.27E-1	1.03E+0	9.86E+0	5.22E-2	4.07E-1	8.67E-3	-1.39E+1	-3.58E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.61E+0	2.13E-3	2.61E-1	1.87E+0	8.75E-4	4.61E-2	1.25E-4	-2.47E+0	-5.45E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.61E+0	2.13E-3	2.61E-1	1.87E+0	8.75E-4	4.61E-2	1.25E-4	-2.47E+0	-5.45E-1
PENRE	MJ	8.80E+0	1.58E-1	1.63E-1	9.13E+0	6.48E-2	7.05E-1	3.60E-3	-4.89E+0	5.01E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	8.80E+0	1.58E-1	1.63E-1	9.13E+0	6.48E-2	7.05E-1	3.60E-3	-4.89E+0	5.01E+0
PET	MJ	1.04E+1	1.60E-1	4.24E-1	1.10E+1	6.57E-2	7.51E-1	3.73E-3	-7.36E+0	4.46E+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	6.13E-3	1.68E-5	6.76E-3	1.29E-2	6.90E-6	6.86E-4	4.15E-6	-4.36E-3	9.23E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	4.99E-5	3.80E-7	2.11E-7	5.05E-5	1.56E-7	1.12E-6	4.14E-9	-4.25E-6	4.76E-5
NHWD	kg	4.16E-2	9.22E-3	1.55E-3	5.23E-2	3.78E-3	2.44E-2	1.51E-2	-1.91E-2	7.66E-2
RWD	kg	1.77E-5	1.01E-6	4.26E-7	1.91E-5	4.15E-7	2.61E-6	2.21E-8	-1.01E-5	1.21E-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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