

Environmental Profile

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

Ecochain v3.5.80



Product: 3025724 - PVC Bend 30° GY 100 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	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	3.83E-1	1.40E-2	1.85E-2	4.16E-1	5.35E-3	2.44E-1	1.66E-3	-2.28E-1	4.39E-1
GWP-f	kg CO2 eq	4.47E-1	1.40E-2	1.44E-2	4.76E-1	5.34E-3	1.64E-1	1.66E-3	-2.52E-1	3.95E-1
GWP-b	kg CO2 eq	-6.49E-2	8.50E-6	4.07E-3	-6.08E-2	3.24E-6	7.97E-2	2.07E-6	2.42E-2	4.31E-2
GWP-luluc	kg CO2 eq	5.61E-4	4.96E-6	1.56E-5	5.81E-4	1.89E-6	6.59E-5	4.47E-8	-3.55E-4	2.94E-4
ODP	kg CFC11 eq	2.22E-7	3.23E-9	1.90E-9	2.27E-7	1.23E-9	1.81E-8	6.26E-11	-1.15E-7	1.31E-7
AP	mol H+ eq	2.19E-3	7.98E-5	8.93E-5	2.36E-3	3.04E-5	3.17E-4	1.52E-6	-1.02E-3	1.69E-3
EP-fw	kg P eq	2.17E-5	1.15E-7	3.47E-7	2.22E-5	4.40E-8	2.20E-6	2.00E-9	-1.08E-5	1.36E-5
EP-m	kg N eq	4.05E-4	2.85E-5	2.56E-5	4.59E-4	1.09E-5	7.91E-5	9.25E-7	-1.91E-4	3.59E-4
EP-T	mol N eq	4.41E-3	3.15E-4	3.18E-4	5.04E-3	1.20E-4	8.71E-4	6.06E-6	-2.08E-3	3.96E-3
POCP	kg NMVOC eq	1.42E-3	8.99E-5	7.59E-5	1.58E-3	3.43E-5	2.61E-4	2.08E-6	-6.92E-4	1.19E-3
ADP-mm	kg Sb eq	5.41E-4	3.62E-7	3.27E-7	5.41E-4	1.38E-7	1.25E-6	1.53E-9	-4.85E-6	5.38E-4
ADP-f	MJ	1.10E+1	2.15E-1	2.00E-1	1.14E+1	8.20E-2	8.53E-1	4.57E-3	-5.90E+0	6.41E+0
WDP	m3 depriv.	6.87E-1	6.60E-4	3.89E-1	1.08E+0	2.52E-4	3.28E-2	3.32E-5	-3.58E-1	7.52E-1
PM	disease inc.	1.63E-8	1.26E-9	1.28E-9	1.89E-8	4.82E-10	3.97E-9	3.14E-11	-8.96E-9	1.44E-8
IR	kBq U-235 eq	2.51E-2	9.40E-4	5.59E-4	2.66E-2	3.59E-4	3.02E-3	2.09E-5	-1.23E-2	1.77E-2
ETP-fw	CTUe	1.50E+1	1.75E-1	2.11E-1	1.54E+1	6.66E-2	6.37E+0	6.98E-2	-5.29E+0	1.66E+1
HTP-c	CTUh	4.08E-10	6.21E-12	1.53E-11	4.30E-10	2.37E-12	9.99E-11	1.27E-13	-1.57E-10	3.75E-10
HTP-nc	CTUh	1.25E-8	2.08E-10	4.10E-10	1.31E-8	7.94E-11	2.27E-9	1.35E-11	-4.76E-9	1.07E-8
SQP	Pt	8.26E+0	1.84E-1	1.21E+0	9.66E+0	7.02E-2	5.27E-1	1.17E-2	-9.99E+0	2.74E-1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.58E+0	3.08E-3	3.09E-1	1.89E+0	1.18E-3	6.05E-2	1.66E-4	-1.79E+0	1.64E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.58E+0	3.08E-3	3.09E-1	1.89E+0	1.18E-3	6.05E-2	1.66E-4	-1.79E+0	1.64E-1
PENRE	MJ	1.18E+1	2.28E-1	2.16E-1	1.22E+1	8.71E-2	9.07E-1	4.85E-3	-6.36E+0	6.84E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.18E+1	2.28E-1	2.16E-1	1.22E+1	8.71E-2	9.07E-1	4.85E-3	-6.36E+0	6.84E+0
PET	MJ	1.33E+1	2.31E-1	5.25E-1	1.41E+1	8.83E-2	9.68E-1	5.01E-3	-8.15E+0	7.00E+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	8.15E-3	2.43E-5	9.12E-3	1.73E-2	9.28E-6	9.03E-4	5.58E-6	-4.38E-3	1.38E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	7.60E-5	5.50E-7	2.85E-7	7.69E-5	2.10E-7	1.41E-6	5.59E-9	-5.32E-6	7.32E-5
NHWD	kg	5.03E-2	1.33E-2	2.09E-3	6.57E-2	5.08E-3	3.21E-2	2.03E-2	-2.17E-2	1.02E-1
RWD	kg	2.22E-5	1.46E-6	5.76E-7	2.42E-5	5.58E-7	3.27E-6	2.97E-8	-1.11E-5	1.69E-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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