

Environmental Profile

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

Ecochain v3.5.80



Product: 3026202 - PVC Elbow 87°3 GY 110 S/S
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					Use stage							End-of-Life stage				
A1 Raw material supply A2 Transport A3 Manufacturing					B1 Use B2 Maintenance B3 Repair B4 Replacement B5 Refurbishment B6 Operational energy use B7 Operational water use							C1 De-construction demolition C2 Transport C3 Waste processing C4 Disposal				
Construction process stage												Benefits and loads beyond the system boundaries				
A4 Transport gate to site A5 Assembly / Construction installation process												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	7.95E-1	2.94E-2	3.88E-2	8.63E-1	1.15E-2	4.46E-1	3.55E-3	-4.68E-1	8.57E-1
GWP-f	kg CO2 eq	8.99E-1	2.94E-2	3.04E-2	9.59E-1	1.15E-2	3.13E-1	3.55E-3	-5.07E-1	7.81E-1
GWP-b	kg CO2 eq	-1.05E-1	1.78E-5	8.31E-3	-9.69E-2	6.97E-6	1.33E-1	4.47E-6	3.95E-2	7.54E-2
GWP-luluc	kg CO2 eq	1.08E-3	1.04E-5	3.04E-5	1.12E-3	4.06E-6	1.42E-4	9.54E-8	-6.60E-4	6.07E-4
ODP	kg CFC11 eq	4.75E-7	6.77E-9	3.98E-9	4.86E-7	2.64E-9	3.89E-8	1.35E-10	-2.44E-7	2.84E-7
AP	mol H+ eq	4.40E-3	1.67E-4	1.78E-4	4.75E-3	6.54E-5	6.70E-4	3.27E-6	-2.10E-3	3.39E-3
EP-fw	kg P eq	4.42E-5	2.42E-7	7.27E-7	4.52E-5	9.44E-8	4.73E-6	4.28E-9	-2.19E-5	2.81E-5
EP-m	kg N eq	8.01E-4	5.99E-5	5.17E-5	9.13E-4	2.34E-5	1.65E-4	2.00E-6	-3.83E-4	7.19E-4
EP-T	mol N eq	8.73E-3	6.60E-4	6.30E-4	1.00E-2	2.58E-4	1.82E-3	1.30E-5	-4.15E-3	7.96E-3
POCP	kg NMVOC eq	2.77E-3	1.89E-4	1.53E-4	3.12E-3	7.37E-5	5.44E-4	4.47E-6	-1.39E-3	2.35E-3
ADP-mm	kg Sb eq	1.13E-3	7.60E-7	6.28E-7	1.13E-3	2.97E-7	2.65E-6	3.28E-9	-1.03E-5	1.12E-3
ADP-f	MJ	2.21E+1	4.51E-1	4.23E-1	2.30E+1	1.76E-1	1.82E+0	9.82E-3	-1.21E+1	1.29E+1
WDP	m3 depriv.	1.45E+0	1.38E-3	8.42E-1	2.29E+0	5.41E-4	7.07E-2	6.85E-5	-7.51E-1	1.61E+0
PM	disease inc.	3.14E-8	2.65E-9	2.57E-9	3.66E-8	1.04E-9	8.36E-9	6.75E-11	-1.74E-8	2.87E-8
IR	kBq U-235 eq	5.18E-2	1.97E-3	1.20E-3	5.49E-2	7.70E-4	6.42E-3	4.50E-5	-2.54E-2	3.67E-2
ETP-fw	CTUe	2.97E+1	3.66E-1	4.18E-1	3.04E+1	1.43E-1	1.38E+1	1.51E-1	-1.03E+1	3.42E+1
HTP-c	CTUh	8.38E-10	1.30E-11	3.15E-11	8.83E-10	5.09E-12	2.06E-10	2.72E-13	-3.17E-10	7.78E-10
HTP-nc	CTUh	2.60E-8	4.37E-10	8.26E-10	2.73E-8	1.71E-10	4.83E-9	2.91E-11	-9.88E-9	2.24E-8
SQP	Pt	1.43E+1	3.86E-1	2.22E+0	1.69E+1	1.51E-1	1.12E+0	2.50E-2	-1.69E+1	1.26E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	2.84E+0	6.47E-3	5.65E-1	3.41E+0	2.53E-3	1.30E-1	3.59E-4	-3.09E+0	4.54E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	2.84E+0	6.47E-3	5.65E-1	3.41E+0	2.53E-3	1.30E-1	3.59E-4	-3.09E+0	4.54E-1
PENRE	MJ	2.37E+1	4.79E-1	4.57E-1	2.46E+1	1.87E-1	1.93E+0	1.04E-2	-1.30E+1	1.38E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	2.37E+1	4.79E-1	4.57E-1	2.46E+1	1.87E-1	1.93E+0	1.04E-2	-1.30E+1	1.38E+1
PET	MJ	2.65E+1	4.85E-1	1.02E+0	2.80E+1	1.90E-1	2.06E+0	1.08E-2	-1.61E+1	1.42E+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	1.66E-2	5.11E-5	1.97E-2	3.63E-2	1.99E-5	1.94E-3	1.20E-5	-8.88E-3	2.94E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.59E-4	1.15E-6	6.16E-7	1.61E-4	4.51E-7	2.98E-6	1.20E-8	-1.06E-5	1.53E-4
NHWD	kg	1.01E-1	2.80E-2	4.52E-3	1.33E-1	1.09E-2	6.63E-2	4.36E-2	-4.43E-2	2.10E-1
RWD	kg	4.54E-5	3.07E-6	1.25E-6	4.97E-5	1.20E-6	6.92E-6	6.38E-8	-2.28E-5	3.50E-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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