

Environmental Profile

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

Ecochain v3.5.80



Product: 3026081 - PVC Branch 45° GY 110 S/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	1.12E+0	4.27E-2	5.27E-2	1.21E+0	1.64E-2	6.89E-1	5.08E-3	-6.68E-1	1.25E+0
GWP-f	kg CO2 eq	1.31E+0	4.26E-2	4.18E-2	1.39E+0	1.64E-2	4.50E-1	5.08E-3	-7.39E-1	1.12E+0
GWP-b	kg CO2 eq	-1.93E-1	2.59E-5	1.08E-2	-1.82E-1	9.97E-6	2.39E-1	6.39E-6	7.24E-2	1.30E-1
GWP-luluc	kg CO2 eq	1.66E-3	1.51E-5	3.60E-5	1.71E-3	5.81E-6	2.03E-4	1.36E-7	-1.07E-3	8.44E-4
ODP	kg CFC11 eq	6.83E-7	9.82E-9	5.42E-9	6.99E-7	3.79E-9	5.60E-8	1.93E-10	-3.50E-7	4.08E-7
AP	mol H+ eq	6.41E-3	2.43E-4	2.21E-4	6.88E-3	9.36E-5	9.69E-4	4.68E-6	-3.11E-3	4.83E-3
EP-fw	kg P eq	6.46E-5	3.51E-7	9.91E-7	6.60E-5	1.35E-7	6.80E-6	6.13E-9	-3.30E-5	3.99E-5
EP-m	kg N eq	1.18E-3	8.69E-5	6.57E-5	1.34E-3	3.35E-5	2.40E-4	2.86E-6	-5.76E-4	1.04E-3
EP-T	mol N eq	1.29E-2	9.58E-4	7.73E-4	1.46E-2	3.69E-4	2.64E-3	1.86E-5	-6.26E-3	1.14E-2
POCP	kg NMVOC eq	4.07E-3	2.74E-4	1.95E-4	4.54E-3	1.05E-4	7.91E-4	6.40E-6	-2.08E-3	3.36E-3
ADP-mm	kg Sb eq	1.62E-3	1.10E-6	7.25E-7	1.62E-3	4.25E-7	3.84E-6	4.70E-9	-1.49E-5	1.61E-3
ADP-f	MJ	3.19E+1	6.54E-1	5.86E-1	3.32E+1	2.52E-1	2.62E+0	1.40E-2	-1.75E+1	1.85E+1
WDP	m3 depriv.	2.08E+0	2.01E-3	1.21E+0	3.29E+0	7.74E-4	1.01E-1	9.73E-5	-1.10E+0	2.29E+0
PM	disease inc.	4.69E-8	3.85E-9	3.26E-9	5.40E-8	1.48E-9	1.21E-8	9.66E-11	-2.72E-8	4.05E-8
IR	kBq U-235 eq	7.50E-2	2.86E-3	1.71E-3	7.96E-2	1.10E-3	9.27E-3	6.44E-5	-3.77E-2	5.23E-2
ETP-fw	CTUe	4.46E+1	5.31E-1	5.15E-1	4.56E+1	2.05E-1	1.97E+1	2.17E-1	-1.61E+1	4.97E+1
HTP-c	CTUh	1.23E-9	1.89E-11	4.14E-11	1.29E-9	7.29E-12	2.97E-10	3.89E-13	-4.78E-10	1.11E-9
HTP-nc	CTUh	3.77E-8	6.33E-10	1.05E-9	3.93E-8	2.44E-10	6.95E-9	4.18E-11	-1.46E-8	3.20E-8
SQP	Pt	2.46E+1	5.60E-1	2.27E+0	2.74E+1	2.16E-1	1.61E+0	3.58E-2	-3.00E+1	-7.21E-1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	4.71E+0	9.39E-3	5.79E-1	5.30E+0	3.62E-3	1.87E-1	5.14E-4	-5.38E+0	1.08E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	4.71E+0	9.39E-3	5.79E-1	5.30E+0	3.62E-3	1.87E-1	5.14E-4	-5.38E+0	1.08E-1
PENRE	MJ	3.42E+1	6.95E-1	6.34E-1	3.56E+1	2.68E-1	2.79E+0	1.49E-2	-1.89E+1	1.98E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	3.42E+1	6.95E-1	6.34E-1	3.56E+1	2.68E-1	2.79E+0	1.49E-2	-1.89E+1	1.98E+1
PET	MJ	3.90E+1	7.04E-1	1.21E+0	4.09E+1	2.71E-1	2.97E+0	1.54E-2	-2.42E+1	1.99E+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	2.40E-2	7.41E-5	2.83E-2	5.23E-2	2.85E-5	2.78E-3	1.72E-5	-1.33E-2	4.18E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	2.28E-4	1.67E-6	8.84E-7	2.31E-4	6.45E-7	4.31E-6	1.71E-8	-1.56E-5	2.20E-4
NHWD	kg	1.49E-1	4.06E-2	6.47E-3	1.96E-1	1.56E-2	9.57E-2	6.25E-2	-6.62E-2	3.04E-1
RWD	kg	6.58E-5	4.45E-6	1.79E-6	7.21E-5	1.71E-6	1.00E-5	9.13E-8	-3.39E-5	5.00E-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



Ecochain Technologies BV
H.J.E. Wenckebachweg 123, 1096 AM Amsterdam, The Netherlands
<https://www.ecochain.com>
+31 20 3035 777