

Environmental Profile

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

Ecochain v3.5.80



Product: 3025987 - PVC Reducer GY 100x40x40 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	2.15E-1	7.28E-3	1.14E-2	2.33E-1	3.00E-3	1.47E-1	9.25E-4	-1.23E-1	2.61E-1
GWP-f	kg CO2 eq	2.58E-1	7.27E-3	8.73E-3	2.74E-1	3.00E-3	9.08E-2	9.24E-4	-1.46E-1	2.22E-1
GWP-b	kg CO2 eq	-4.35E-2	4.41E-6	2.68E-3	-4.08E-2	1.82E-6	5.62E-2	1.17E-6	2.33E-2	3.88E-2
GWP-luluc	kg CO2 eq	3.64E-4	2.57E-6	1.16E-5	3.78E-4	1.06E-6	3.75E-5	2.47E-8	-2.71E-4	1.46E-4
ODP	kg CFC11 eq	1.27E-7	1.68E-9	1.17E-9	1.30E-7	6.92E-10	1.04E-8	3.51E-11	-6.52E-8	7.61E-8
AP	mol H+ eq	1.26E-3	4.14E-5	6.27E-5	1.36E-3	1.71E-5	1.84E-4	8.53E-7	-6.26E-4	9.36E-4
EP-fw	kg P eq	1.25E-5	5.98E-8	2.13E-7	1.28E-5	2.47E-8	1.26E-6	1.11E-9	-6.96E-6	7.14E-6
EP-m	kg N eq	2.40E-4	1.48E-5	1.74E-5	2.72E-4	6.12E-6	4.63E-5	5.22E-7	-1.19E-4	2.06E-4
EP-T	mol N eq	2.58E-3	1.63E-4	2.26E-4	2.96E-3	6.74E-5	5.10E-4	3.40E-6	-1.30E-3	2.24E-3
POCP	kg NMVOC eq	8.17E-4	4.67E-5	5.16E-5	9.16E-4	1.93E-5	1.52E-4	1.17E-6	-4.24E-4	6.64E-4
ADP-mm	kg Sb eq	2.47E-4	1.88E-7	2.48E-7	2.47E-4	7.76E-8	7.25E-7	8.55E-10	-2.80E-6	2.45E-4
ADP-f	MJ	6.27E+0	1.12E-1	1.20E-1	6.51E+0	4.61E-2	4.90E-1	2.56E-3	-3.39E+0	3.65E+0
WDP	m3 depriv.	3.88E-1	3.43E-4	2.18E-1	6.07E-1	1.41E-4	1.86E-2	1.74E-5	-2.15E-1	4.10E-1
PM	disease inc.	9.96E-9	6.56E-10	8.71E-10	1.15E-8	2.71E-10	2.30E-9	1.76E-11	-6.07E-9	8.01E-9
IR	kBq U-235 eq	1.45E-2	4.88E-4	3.20E-4	1.53E-2	2.01E-4	1.74E-3	1.17E-5	-7.57E-3	9.70E-3
ETP-fw	CTUe	9.11E+0	9.06E-2	1.49E-1	9.35E+0	3.74E-2	3.63E+0	3.97E-2	-3.73E+0	9.32E+0
HTP-c	CTUh	2.24E-10	3.22E-12	9.95E-12	2.37E-10	1.33E-12	5.66E-11	7.06E-14	-9.62E-11	1.99E-10
HTP-nc	CTUh	6.80E-9	1.08E-10	2.81E-10	7.18E-9	4.46E-11	1.30E-9	7.63E-12	-2.89E-9	5.65E-9
SQP	Pt	5.61E+0	9.55E-2	1.02E+0	6.72E+0	3.94E-2	3.02E-1	6.54E-3	-7.87E+0	-8.00E-1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.05E+0	1.60E-3	2.58E-1	1.31E+0	6.61E-4	3.45E-2	9.39E-5	-1.40E+0	-5.30E-2
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.05E+0	1.60E-3	2.58E-1	1.31E+0	6.61E-4	3.45E-2	9.39E-5	-1.40E+0	-5.30E-2
PENRE	MJ	6.73E+0	1.18E-1	1.29E-1	6.98E+0	4.89E-2	5.21E-1	2.72E-3	-3.65E+0	3.90E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	6.73E+0	1.18E-1	1.29E-1	6.98E+0	4.89E-2	5.21E-1	2.72E-3	-3.65E+0	3.90E+0
PET	MJ	7.78E+0	1.20E-1	3.87E-1	8.29E+0	4.96E-2	5.56E-1	2.81E-3	-5.05E+0	3.84E+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	4.60E-3	1.26E-5	5.12E-3	9.73E-3	5.21E-6	5.15E-4	3.13E-6	-2.83E-3	7.43E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	3.57E-5	2.85E-7	1.59E-7	3.62E-5	1.18E-7	8.18E-7	3.12E-9	-3.12E-6	3.40E-5
NHWD	kg	2.96E-2	6.92E-3	1.17E-3	3.77E-2	2.85E-3	1.83E-2	1.14E-2	-1.32E-2	5.71E-2
RWD	kg	1.30E-5	7.59E-7	3.22E-7	1.41E-5	3.13E-7	1.90E-6	1.67E-8	-6.87E-6	9.48E-6
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