Environmental Profile

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

Ecochain v3.5.80

Product:	3025993 - PVC Saddle GY 100-110/50 BC
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

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]

Statement of Confidentiality

Results

Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	1.66E-1	6.61E-3	1.03E-2	1.83E-1	2.27E-3	1.29E-1	7.07E-4	-8.33E-2	2.32E-1
GWP-f	kg CO2 eq	2.10E-1	6.60E-3	7.61E-3	2.24E-1	2.26E-3	6.68E-2	7.07E-4	-1.20E-1	1.74E-1
GWP-b	kg CO2 eq	-4.36E-2	4.01E-6	2.69E-3	-4.09E-2	1.37E-6	6.21E-2	8.74E-7	3.70E-2	5.82E-2
GWP-luluc	kg CO2 eq	3.92E-4	2.34E-6	1.34E-5	4.08E-4	8.01E-7	2.83E-5	1.94E-8	-3.44E-4	9.27E-5
ODP	kg CFC11 eq	9.63E-8	1.52E-9	1.05E-9	9.89E-8	5.22E-10	7.93E-9	2.65E-11	-5.05E-8	5.68E-8
AP	mol H+ eq	1.06E-3	3.76E-5	6.84E-5	1.17E-3	1.29E-5	1.46E-4	6.47E-7	-5.71E-4	7.55E-4
EP-fw	kg P eq	1.08E-5	5.43E-8	1.92E-7	1.10E-5	1.86E-8	9.50E-7	8.62E-10	-6.99E-6	4.98E-6
EP-m	kg N eq	2.17E-4	1.35E-5	1.83E-5	2.49E-4	4.61E-6	3.80E-5	3.89E-7	-1.13E-4	1.79E-4
EP-T	mol N eq	2.31E-3	1.48E-4	2.51E-4	2.71E-3	5.08E-5	4.18E-4	2.57E-6	-1.25E-3	1.93E-3
POCP	kg NMVOC eq	6.90E-4	4.24E-5	5.41E-5	7.87E-4	1.45E-5	1.25E-4	8.85E-7	-3.89E-4	5.38E-4
ADP-mm	kg Sb eq	2.46E-4	1.71E-7	2.96E-7	2.46E-4	5.86E-8	5.80E-7	6.55E-10	-2.27E-6	2.45E-4
ADP-f	MJ	4.86E+0	1.01E-1	1.02E-1	5.07E+0	3.47E-2	3.83E-1	1.94E-3	-2.72E+0	2.76E+0
WDP	m3 depriv.	2.93E-1	3.11E-4	1.63E-1	4.56E-1	1.07E-4	1.39E-2	1.55E-5	-1.90E-1	2.79E-1
PM	disease inc.	9.25E-9	5.96E-10	9.16E-10	1.08E-8	2.04E-10	1.86E-9	1.33E-11	-6.60E-9	6.24E-9
IR	kBq U-235 eq	1.19E-2	4.43E-4	2.48E-4	1.26E-2	1.52E-4	1.38E-3	8.84E-6	-6.96E-3	7.15E-3
ETP-fw	CTUe	9.82E+0	8.23E-2	1.65E-1	1.01E+1	2.82E-2	2.70E+0	2.90E-2	-4.32E+0	8.50E+0
HTP-c	CTUh	1.95E-10	2.93E-12	9.74E-12	2.07E-10	1.00E-12	4.63E-11	5.50E-14	-8.77E-11	1.67E-10
HTP-nc	CTUh	5.74E-9	9.81E-11	2.96E-10	6.13E-9	3.36E-11	9.91E-10	5.62E-12	-2.59E-9	4.57E-9
SQP	Pt	5.95E+0	8.67E-2	1.34E+0	7.37E+0	2.97E-2	2.36E-1	4.94E-3	-1.02E+1	-2.56E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.09E+0	1.45E-3	3.39E-1	1.43E+0	4.99E-4	2.61E-2	6.98E-5	-1.80E+0	-3.50E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.09E+0	1.45E-3	3.39E-1	1.43E+0	4.99E-4	2.61E-2	6.98E-5	-1.80E+0	-3.50E-1
PENRE	MJ	5.21E+0	1.08E-1	1.10E-1	5.43E+0	3.69E-2	4.08E-1	2.06E-3	-2.92E+0	2.96E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	5.21E+0	1.08E-1	1.10E-1	5.43E+0	3.69E-2	4.08E-1	2.06E-3	-2.92E+0	2.96E+0
PET	MJ	6.30E+0	1.09E-1	4.48E-1	6.86E+0	3.74E-2	4.34E-1	2.13E-3	-4.72E+0	2.61E+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	3.70E-3	1.15E-5	3.82E-3	7.53E-3	3.93E-6	3.87E-4	2.36E-6	-2.87E-3	5.05E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	3.48E-5	2.59E-7	1.18E-7	3.52E-5	8.89E-8	6.60E-7	2.38E-9	-2.61E-6	3.34E-5
NHWD	kg	2.62E-2	6.28E-3	8.73E-4	3.34E-2	2.15E-3	1.44E-2	8.61E-3	-1.19E-2	4.66E-2
RWD	kg	1.09E-5	6.89E-7	2.39E-7	1.18E-5	2.36E-7	1.54E-6	1.26E-8	-6.39E-6	7.19E-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