Environmental Profile

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

Ecochain v3.5.80

Product:	3025575 - Gutter Coupler WT 80
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	1.82E-1	6.15E-3	7.76E-3	1.96E-1	2.27E-3	1.24E-1	7.26E-4	-8.77E-2	2.35E-1
GWP-f	kg CO2 eq	2.26E-1	6.14E-3	6.03E-3	2.38E-1	2.26E-3	6.61E-2	7.26E-4	-1.14E-1	1.93E-1
GWP-b	kg CO2 eq	-4.36E-2	3.73E-6	1.72E-3	-4.18E-2	1.37E-6	5.74E-2	8.65E-7	2.62E-2	4.18E-2
GWP-luluc	kg CO2 eq	3.47E-4	2.17E-6	6.70E-6	3.56E-4	8.01E-7	2.71E-5	2.07E-8	-2.69E-4	1.15E-4
ODP	kg CFC11 eq	9.18E-8	1.41E-9	7.95E-10	9.40E-8	5.22E-10	7.41E-9	2.66E-11	-4.97E-8	5.23E-8
AP	mol H+ eq	1.71E-3	3.50E-5	3.80E-5	1.78E-3	1.29E-5	1.37E-4	6.55E-7	-5.20E-4	1.42E-3
EP-fw	kg P eq	1.15E-5	5.05E-8	1.45E-7	1.17E-5	1.86E-8	9.03E-7	9.05E-10	-6.06E-6	6.60E-6
EP-m	kg N eq	2.35E-4	1.25E-5	1.09E-5	2.58E-4	4.61E-6	3.53E-5	3.81E-7	-1.01E-4	1.97E-4
EP-T	mol N eq	2.47E-3	1.38E-4	1.36E-4	2.74E-3	5.08E-5	3.89E-4	2.59E-6	-1.12E-3	2.07E-3
POCP	kg NMVOC eq	7.86E-4	3.94E-5	3.22E-5	8.58E-4	1.45E-5	1.17E-4	8.95E-7	-3.55E-4	6.35E-4
ADP-mm	kg Sb eq	2.46E-4	1.59E-7	1.41E-7	2.46E-4	5.86E-8	5.43E-7	6.74E-10	-2.19E-6	2.44E-4
ADP-f	MJ	4.86E+0	9.43E-2	8.35E-2	5.03E+0	3.47E-2	3.66E-1	1.95E-3	-2.62E+0	2.82E+0
WDP	m3 depriv.	3.18E-1	2.89E-4	1.62E-1	4.79E-1	1.07E-4	1.32E-2	2.04E-5	-1.75E-1	3.18E-1
PM	disease inc.	1.07E-8	5.54E-10	5.42E-10	1.18E-8	2.04E-10	1.76E-9	1.34E-11	-5.59E-9	8.18E-9
IR	kBq U-235 eq	1.23E-2	4.12E-4	2.33E-4	1.29E-2	1.52E-4	1.30E-3	8.81E-6	-6.30E-3	8.09E-3
ETP-fw	CTUe	9.34E+0	7.65E-2	8.98E-2	9.51E+0	2.82E-2	2.52E+0	2.72E-2	-3.51E+0	8.58E+0
HTP-c	CTUh	2.99E-10	2.72E-12	6.46E-12	3.08E-10	1.00E-12	4.71E-11	5.86E-14	-8.14E-11	2.75E-10
HTP-nc	CTUh	6.52E-9	9.12E-11	1.74E-10	6.79E-9	3.36E-11	9.45E-10	5.35E-12	-2.38E-9	5.39E-9
SQP	Pt	5.75E+0	8.06E-2	5.30E-1	6.36E+0	2.97E-2	2.29E-1	4.94E-3	-8.27E+0	-1.64E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.04E+0	1.35E-3	1.35E-1	1.17E+0	4.99E-4	2.49E-2	6.76E-5	-1.45E+0	-2.52E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.04E+0	1.35E-3	1.35E-1	1.17E+0	4.99E-4	2.49E-2	6.76E-5	-1.45E+0	-2.52E-1
PENRE	MJ	5.21E+0	1.00E-1	9.02E-2	5.40E+0	3.69E-2	3.89E-1	2.07E-3	-2.81E+0	3.01E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	5.21E+0	1.00E-1	9.02E-2	5.40E+0	3.69E-2	3.89E-1	2.07E-3	-2.81E+0	3.01E+0
PET	MJ	6.25E+0	1.01E-1	2.25E-1	6.57E+0	3.74E-2	4.14E-1	2.14E-3	-4.26E+0	2.76E+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	4.53E-3	1.07E-5	3.79E-3	8.33E-3	3.93E-6	3.66E-4	2.35E-6	-2.46E-3	6.24E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	3.49E-5	2.41E-7	1.18E-7	3.52E-5	8.89E-8	6.23E-7	2.44E-9	-2.47E-6	3.35E-5
NHWD	kg	5.27E-2	5.84E-3	8.67E-4	5.94E-2	2.15E-3	1.39E-2	8.61E-3	-1.11E-2	7.30E-2
RWD	kg	1.12E-5	6.41E-7	2.39E-7	1.21E-5	2.36E-7	1.44E-6	1.26E-8	-5.76E-6	7.99E-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

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