Environmental Profile

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

Ecochain v3.5.80

Product:	3025670 - Gutter Coupler Sand 100
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	3.06E-1	1.01E-2	1.22E-2	3.28E-1	3.87E-3	1.79E-1	1.22E-3	-1.65E-1	3.47E-1
GWP-f	kg CO2 eq	3.48E-1	1.01E-2	9.70E-3	3.68E-1	3.87E-3	1.23E-1	1.22E-3	-1.87E-1	3.08E-1
GWP-b	kg CO2 eq	-4.29E-2	6.14E-6	2.49E-3	-4.04E-2	2.35E-6	5.62E-2	1.50E-6	2.31E-2	3.89E-2
GWP-luluc	kg CO2 eq	4.49E-4	3.58E-6	8.12E-6	4.60E-4	1.37E-6	4.72E-5	3.38E-8	-2.95E-4	2.14E-4
ODP	kg CFC11 eq	1.59E-7	2.33E-9	1.25E-9	1.62E-7	8.92E-10	1.29E-8	4.55E-11	-8.43E-8	9.20E-8
AP	mol H+ eq	2.05E-3	5.76E-5	5.03E-5	2.16E-3	2.20E-5	2.30E-4	1.11E-6	-7.69E-4	1.64E-3
EP-fw	kg P eq	1.70E-5	8.32E-8	2.29E-7	1.73E-5	3.18E-8	1.58E-6	1.50E-9	-8.34E-6	1.06E-5
EP-m	kg N eq	3.27E-4	2.06E-5	1.50E-5	3.62E-4	7.89E-6	5.79E-5	6.66E-7	-1.44E-4	2.84E-4
EP-T	mol N eq	3.53E-3	2.27E-4	1.76E-4	3.93E-3	8.69E-5	6.37E-4	4.42E-6	-1.57E-3	3.08E-3
POCP	kg NMVOC eq	1.14E-3	6.49E-5	4.45E-5	1.24E-3	2.48E-5	1.91E-4	1.52E-6	-5.18E-4	9.44E-4
ADP-mm	kg Sb eq	3.94E-4	2.62E-7	1.63E-7	3.94E-4	1.00E-7	9.05E-7	1.13E-9	-3.56E-6	3.92E-4
ADP-f	MJ	8.15E+0	1.55E-1	1.36E-1	8.44E+0	5.94E-2	6.17E-1	3.33E-3	-4.37E+0	4.75E+0
WDP	m3 depriv.	5.18E-1	4.76E-4	2.82E-1	8.01E-1	1.82E-4	2.33E-2	2.85E-5	-2.69E-1	5.55E-1
PM	disease inc.	1.37E-8	9.13E-10	7.46E-10	1.54E-8	3.49E-10	2.89E-9	2.29E-11	-6.98E-9	1.17E-8
IR	kBq U-235 eq	1.90E-2	6.78E-4	3.98E-4	2.00E-2	2.60E-4	2.18E-3	1.52E-5	-9.32E-3	1.32E-2
ETP-fw	CTUe	1.22E+1	1.26E-1	1.17E-1	1.24E+1	4.82E-2	4.51E+0	4.93E-2	-4.25E+0	1.28E+1
HTP-c	CTUh	3.63E-10	4.48E-12	9.54E-12	3.77E-10	1.72E-12	7.56E-11	9.60E-14	-1.16E-10	3.39E-10
HTP-nc	CTUh	9.72E-9	1.50E-10	2.39E-10	1.01E-8	5.75E-11	1.64E-9	9.57E-12	-3.57E-9	8.24E-9
SQP	Pt	6.04E+0	1.33E-1	4.96E-1	6.66E+0	5.08E-2	3.83E-1	8.47E-3	-7.96E+0	-8.57E-1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.17E+0	2.23E-3	1.27E-1	1.30E+0	8.52E-4	4.33E-2	1.19E-4	-1.44E+0	-9.21E-2
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.17E+0	2.23E-3	1.27E-1	1.30E+0	8.52E-4	4.33E-2	1.19E-4	-1.44E+0	-9.21E-2
PENRE	MJ	8.74E+0	1.65E-1	1.47E-1	9.05E+0	6.31E-2	6.57E-1	3.53E-3	-4.70E+0	5.07E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	8.74E+0	1.65E-1	1.47E-1	9.05E+0	6.31E-2	6.57E-1	3.53E-3	-4.70E+0	5.07E+0
PET	MJ	9.91E+0	1.67E-1	2.74E-1	1.03E+1	6.39E-2	7.00E-1	3.65E-3	-6.14E+0	4.98E+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	6.63E-3	1.76E-5	6.60E-3	1.32E-2	6.72E-6	6.45E-4	4.04E-6	-3.39E-3	1.05E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	5.56E-5	3.97E-7	2.06E-7	5.62E-5	1.52E-7	1.03E-6	4.11E-9	-3.94E-6	5.34E-5
NHWD	kg	5.42E-2	9.62E-3	1.51E-3	6.53E-2	3.68E-3	2.35E-2	1.47E-2	-1.61E-2	9.11E-2
RWD	kg	1.68E-5	1.06E-6	4.17E-7	1.82E-5	4.04E-7	2.38E-6	2.16E-8	-8.43E-6	1.26E-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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