

Environmental Profile

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

Ecochain v3.5.80



Product: 3025902 - Gutter Elbow 87°3 Sand 80 S/SP
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	3.66E-1	1.26E-2	1.55E-2	3.94E-1	4.79E-3	2.27E-1	1.51E-3	-1.87E-1	4.41E-1
GWP-f	kg CO2 eq	4.30E-1	1.26E-2	1.22E-2	4.55E-1	4.79E-3	1.37E-1	1.51E-3	-2.33E-1	3.65E-1
GWP-b	kg CO2 eq	-6.43E-2	7.67E-6	3.21E-3	-6.11E-2	2.91E-6	8.96E-2	1.86E-6	4.70E-2	7.55E-2
GWP-luluc	kg CO2 eq	6.50E-4	4.47E-6	1.09E-5	6.65E-4	1.70E-6	5.89E-5	4.17E-8	-4.98E-4	2.28E-4
ODP	kg CFC11 eq	1.99E-7	2.91E-9	1.59E-9	2.03E-7	1.10E-9	1.63E-8	5.64E-11	-1.05E-7	1.16E-7
AP	mol H+ eq	2.56E-3	7.19E-5	6.63E-5	2.70E-3	2.73E-5	2.91E-4	1.38E-6	-1.04E-3	1.98E-3
EP-fw	kg P eq	2.17E-5	1.04E-7	2.91E-7	2.21E-5	3.94E-8	1.97E-6	1.85E-9	-1.20E-5	1.22E-5
EP-m	kg N eq	4.23E-4	2.57E-5	1.96E-5	4.69E-4	9.76E-6	7.40E-5	8.25E-7	-1.99E-4	3.54E-4
EP-T	mol N eq	4.52E-3	2.84E-4	2.33E-4	5.04E-3	1.08E-4	8.15E-4	5.47E-6	-2.19E-3	3.78E-3
POCP	kg NMVOC eq	1.41E-3	8.11E-5	5.81E-5	1.55E-3	3.08E-5	2.44E-4	1.88E-6	-7.00E-4	1.12E-3
ADP-mm	kg Sb eq	4.92E-4	3.27E-7	2.22E-7	4.92E-4	1.24E-7	1.16E-6	1.40E-9	-4.55E-6	4.89E-4
ADP-f	MJ	9.85E+0	1.94E-1	1.71E-1	1.02E+1	7.35E-2	7.79E-1	4.12E-3	-5.42E+0	5.65E+0
WDP	m3 depriv.	6.35E-1	5.95E-4	3.50E-1	9.85E-1	2.26E-4	2.90E-2	3.50E-5	-3.59E-1	6.56E-1
PM	disease inc.	1.79E-8	1.14E-9	9.74E-10	2.00E-8	4.32E-10	3.69E-9	2.83E-11	-1.05E-8	1.36E-8
IR	kBq U-235 eq	2.39E-2	8.47E-4	4.96E-4	2.52E-2	3.21E-4	2.77E-3	1.88E-5	-1.27E-2	1.56E-2
ETP-fw	CTUe	1.72E+1	1.57E-1	1.55E-1	1.75E+1	5.97E-2	5.62E+0	6.12E-2	-6.69E+0	1.65E+1
HTP-c	CTUh	4.60E-10	5.60E-12	1.23E-11	4.78E-10	2.12E-12	9.41E-11	1.19E-13	-1.58E-10	4.16E-10
HTP-nc	CTUh	1.22E-8	1.88E-10	3.13E-10	1.27E-8	7.12E-11	2.04E-9	1.19E-11	-4.81E-9	1.00E-8
SQP	Pt	9.13E+0	1.66E-1	7.18E-1	1.00E+1	6.29E-2	4.82E-1	1.05E-2	-1.40E+1	-3.43E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.73E+0	2.78E-3	1.83E-1	1.91E+0	1.06E-3	5.41E-2	1.48E-4	-2.50E+0	-5.34E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.73E+0	2.78E-3	1.83E-1	1.91E+0	1.06E-3	5.41E-2	1.48E-4	-2.50E+0	-5.34E-1
PENRE	MJ	1.06E+1	2.06E-1	1.85E-1	1.10E+1	7.81E-2	8.29E-1	4.37E-3	-5.82E+0	6.04E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.06E+1	2.06E-1	1.85E-1	1.10E+1	7.81E-2	8.29E-1	4.37E-3	-5.82E+0	6.04E+0
PET	MJ	1.23E+1	2.09E-1	3.68E-1	1.29E+1	7.91E-2	8.83E-1	4.52E-3	-8.33E+0	5.51E+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	8.12E-3	2.19E-5	8.19E-3	1.63E-2	8.32E-6	8.03E-4	5.00E-6	-4.89E-3	1.23E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	6.97E-5	4.96E-7	2.56E-7	7.04E-5	1.88E-7	1.31E-6	5.08E-9	-4.98E-6	6.70E-5
NHWD	kg	6.94E-2	1.20E-2	1.88E-3	8.33E-2	4.56E-3	2.90E-2	1.82E-2	-2.18E-2	1.13E-1
RWD	kg	2.13E-5	1.32E-6	5.18E-7	2.31E-5	5.00E-7	3.05E-6	2.67E-8	-1.15E-5	1.52E-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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