

Environmental Profile

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

Ecochain v3.5.80



Product: 3025668 - Gutter Pipe Bracket Sand 100
Unit: 1 piece
Manufacturer: Wavin - PL -Buk - Extra products

LCA standard: EN15804+A2 (2019)
Standard database: Worldwide - Ecoinvent v 3.6 Cut-Off
Externally verified: Yes
Issue date: 08-06-2023
End of validity: 08-06-2028
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 - PL -Buk - Extra products (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	8.18E-2	1.13E-3	1.45E-4	8.31E-2	8.43E-4	7.11E-2	3.97E-4	-5.24E-2	1.03E-1
GWP-f	kg CO2 eq	1.15E-1	1.13E-3	1.46E-4	1.16E-1	8.42E-4	3.60E-2	3.97E-4	-5.64E-2	9.67E-2
GWP-b	kg CO2 eq	-3.29E-2	6.88E-7	-1.54E-6	-3.29E-2	5.11E-7	3.51E-2	3.44E-7	4.10E-3	6.34E-3
GWP-luluc	kg CO2 eq	8.96E-5	4.01E-7	1.49E-7	9.01E-5	2.98E-7	5.16E-6	6.93E-9	-5.04E-5	4.52E-5
ODP	kg CFC11 eq	4.84E-9	2.61E-10	8.26E-12	5.11E-9	1.94E-10	7.81E-10	9.97E-12	-3.58E-9	2.51E-9
AP	mol H+ eq	5.14E-4	6.45E-6	1.47E-6	5.22E-4	4.80E-6	3.29E-5	2.39E-7	-1.81E-4	3.79E-4
EP-fw	kg P eq	3.02E-6	9.32E-9	8.24E-9	3.03E-6	6.93E-9	1.54E-7	3.15E-10	-1.19E-6	2.01E-6
EP-m	kg N eq	9.15E-5	2.31E-6	1.55E-7	9.40E-5	1.72E-6	1.00E-5	1.53E-7	-3.67E-5	6.92E-5
EP-T	mol N eq	1.03E-3	2.54E-5	1.85E-6	1.05E-3	1.89E-5	1.11E-4	9.67E-7	-4.15E-4	7.68E-4
POCP	kg NMVOC eq	4.01E-4	7.27E-6	6.28E-7	4.09E-4	5.41E-6	3.42E-5	3.63E-7	-1.75E-4	2.74E-4
ADP-mm	kg Sb eq	2.35E-6	2.93E-8	1.97E-8	2.40E-6	2.18E-8	1.27E-7	2.42E-10	-3.84E-7	2.16E-6
ADP-f	MJ	3.09E+0	1.74E-2	1.36E-3	3.11E+0	1.29E-2	9.41E-2	7.28E-4	-1.48E+0	1.73E+0
WDP	m3 depriv.	6.30E-2	5.33E-5	5.22E-5	6.31E-2	3.97E-5	1.71E-3	4.29E-6	-3.08E-2	3.40E-2
PM	disease inc.	5.45E-9	1.02E-10	9.08E-12	5.56E-9	7.60E-11	5.19E-10	5.01E-12	-2.16E-9	4.00E-9
IR	kBq U-235 eq	2.97E-3	7.60E-5	1.02E-6	3.05E-3	5.65E-5	3.00E-4	3.37E-6	-1.05E-3	2.36E-3
ETP-fw	CTUe	2.14E+0	1.41E-2	1.21E-2	2.17E+0	1.05E-2	1.14E-1	6.10E-4	-7.55E-1	1.54E+0
HTP-c	CTUh	3.54E-10	5.02E-13	6.17E-13	3.55E-10	3.74E-13	1.42E-11	1.83E-14	-2.23E-11	3.48E-10
HTP-nc	CTUh	1.93E-9	1.68E-11	1.57E-11	1.97E-9	1.25E-11	1.70E-10	3.95E-13	3.94E-10	2.54E-9
SQP	Pt	3.25E+0	1.49E-2	2.24E-3	3.27E+0	1.11E-2	7.60E-2	1.87E-3	-3.13E+0	2.22E-1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.02E+0	2.49E-4	2.40E-2	1.05E+0	1.85E-4	4.56E-3	2.79E-5	-5.02E-1	5.48E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.02E+0	2.49E-4	2.40E-2	1.05E+0	1.85E-4	4.56E-3	2.79E-5	-5.02E-1	5.48E-1
PENRE	MJ	3.31E+0	1.85E-2	1.44E-3	3.33E+0	1.37E-2	1.00E-1	7.73E-4	-1.60E+0	1.85E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	3.31E+0	1.85E-2	1.44E-3	3.33E+0	1.37E-2	1.00E-1	7.73E-4	-1.60E+0	1.85E+0
PET	MJ	4.33E+0	1.87E-2	2.55E-2	4.38E+0	1.39E-2	1.05E-1	8.01E-4	-2.10E+0	2.40E+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	1.19E-3	1.97E-6	1.46E-6	1.19E-3	1.46E-6	5.34E-5	8.95E-7	-5.46E-4	7.02E-4

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.22E-6	4.45E-8	2.73E-13	1.27E-6	3.31E-8	1.66E-7	8.83E-10	-1.15E-6	3.17E-7
NHWD	kg	2.79E-2	1.08E-3	1.05E-6	2.90E-2	8.01E-4	5.11E-3	3.20E-3	-3.08E-3	3.50E-2
RWD	kg	2.77E-6	1.18E-7	1.10E-13	2.89E-6	8.79E-8	3.88E-7	4.75E-9	-1.07E-6	2.30E-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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