

Environmental Profile

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

Ecochain v3.5.80



Product: 3025892 - Gutter Support Bracket Sand 25
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	1.27E-1	2.68E-3	1.45E-4	1.30E-1	1.61E-3	9.22E-2	5.02E-4	-7.23E-2	1.52E-1
GWP-f	kg CO2 eq	1.59E-1	2.68E-3	1.46E-4	1.61E-1	1.61E-3	5.52E-2	5.02E-4	-8.01E-2	1.39E-1
GWP-b	kg CO2 eq	-3.18E-2	1.63E-6	-1.54E-6	-3.18E-2	9.75E-7	3.69E-2	6.08E-7	7.94E-3	1.31E-2
GWP-luluc	kg CO2 eq	1.95E-4	9.48E-7	1.49E-7	1.96E-4	5.68E-7	1.91E-5	1.42E-8	-1.17E-4	9.86E-5
ODP	kg CFC11 eq	6.46E-8	6.17E-10	8.26E-12	6.53E-8	3.70E-10	5.18E-9	1.88E-11	-3.46E-8	3.62E-8
AP	mol H+ eq	9.50E-4	1.53E-5	1.47E-6	9.67E-4	9.15E-6	9.40E-5	4.59E-7	-3.21E-4	7.49E-4
EP-fw	kg P eq	7.47E-6	2.20E-8	8.24E-9	7.50E-6	1.32E-8	6.37E-7	6.23E-10	-3.36E-6	4.79E-6
EP-m	kg N eq	1.49E-4	5.46E-6	1.55E-7	1.54E-4	3.27E-6	2.39E-5	2.70E-7	-6.14E-5	1.20E-4
EP-T	mol N eq	1.61E-3	6.02E-5	1.85E-6	1.67E-3	3.61E-5	2.63E-4	1.82E-6	-6.71E-4	1.30E-3
POCP	kg NMVOC eq	5.29E-4	1.72E-5	6.28E-7	5.47E-4	1.03E-5	7.88E-5	6.27E-7	-2.24E-4	4.13E-4
ADP-mm	kg Sb eq	1.96E-4	6.93E-8	1.97E-8	1.96E-4	4.15E-8	3.68E-7	4.69E-10	-1.47E-6	1.95E-4
ADP-f	MJ	3.59E+0	4.11E-2	1.36E-3	3.63E+0	2.46E-2	2.53E-1	1.37E-3	-1.84E+0	2.06E+0
WDP	m3 depriv.	2.16E-1	1.26E-4	5.22E-5	2.16E-1	7.56E-5	9.38E-3	1.29E-5	-1.08E-1	1.18E-1
PM	disease inc.	6.41E-9	2.42E-10	9.08E-12	6.66E-9	1.45E-10	1.19E-9	9.43E-12	-2.97E-9	5.04E-9
IR	kBq U-235 eq	8.21E-3	1.80E-4	1.02E-6	8.39E-3	1.08E-4	8.90E-4	6.22E-6	-3.81E-3	5.59E-3
ETP-fw	CTUe	5.50E+0	3.34E-2	1.21E-2	5.55E+0	2.00E-2	1.79E+0	1.95E-2	-1.68E+0	5.70E+0
HTP-c	CTUh	1.79E-10	1.19E-12	6.17E-13	1.81E-10	7.12E-13	3.23E-11	4.01E-14	-5.18E-11	1.62E-10
HTP-nc	CTUh	4.55E-9	3.98E-11	1.57E-11	4.61E-9	2.39E-11	6.67E-10	3.82E-12	-1.47E-9	3.83E-9
SQP	Pt	3.71E+0	3.52E-2	2.24E-3	3.75E+0	2.11E-2	1.59E-1	3.48E-3	-4.01E+0	-7.99E-2
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.04E+0	5.90E-4	2.40E-2	1.06E+0	3.54E-4	1.75E-2	4.80E-5	-6.92E-1	3.89E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.04E+0	5.90E-4	2.40E-2	1.06E+0	3.54E-4	1.75E-2	4.80E-5	-6.92E-1	3.89E-1
PENRE	MJ	3.85E+0	4.36E-2	1.44E-3	3.89E+0	2.62E-2	2.69E-1	1.46E-3	-1.99E+0	2.20E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	3.85E+0	4.36E-2	1.44E-3	3.89E+0	2.62E-2	2.69E-1	1.46E-3	-1.99E+0	2.20E+0
PET	MJ	4.89E+0	4.42E-2	2.55E-2	4.96E+0	2.65E-2	2.86E-1	1.50E-3	-2.68E+0	2.59E+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	2.91E-3	4.65E-6	1.46E-6	2.91E-3	2.79E-6	2.60E-4	1.66E-6	-1.35E-3	1.83E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	2.74E-5	1.05E-7	2.73E-13	2.75E-5	6.30E-8	4.23E-7	1.70E-9	-1.72E-6	2.62E-5
NHWD	kg	2.48E-2	2.55E-3	1.05E-6	2.74E-2	1.53E-3	9.96E-3	6.11E-3	-7.02E-3	3.80E-2
RWD	kg	7.35E-6	2.80E-7	1.10E-13	7.63E-6	1.68E-7	9.77E-7	8.88E-9	-3.47E-6	5.32E-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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