

Environmental Profile

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

Ecochain v3.5.80



Product: 3025893 - Gutter Support Bracket Sand 25 + Rafter
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	5.45E-1	6.12E-3	1.45E-4	5.51E-1	1.61E-3	1.42E-1	5.02E-4	-1.93E-1	5.01E-1
GWP-f	kg CO2 eq	6.06E-1	6.12E-3	1.46E-4	6.12E-1	1.61E-3	6.80E-2	5.02E-4	-2.11E-1	4.71E-1
GWP-b	kg CO2 eq	-6.18E-2	3.72E-6	-1.54E-6	-6.18E-2	9.75E-7	7.37E-2	6.08E-7	1.76E-2	2.95E-2
GWP-luluc	kg CO2 eq	6.48E-4	2.17E-6	1.49E-7	6.50E-4	5.68E-7	2.53E-5	1.42E-8	-1.03E-4	5.73E-4
ODP	kg CFC11 eq	1.02E-7	1.41E-9	8.26E-12	1.03E-7	3.70E-10	7.00E-9	1.88E-11	-3.89E-8	7.19E-8
AP	mol H+ eq	3.11E-3	3.49E-5	1.47E-6	3.15E-3	9.15E-6	1.72E-4	4.59E-7	-8.53E-4	2.48E-3
EP-fw	kg P eq	3.37E-5	5.04E-8	8.24E-9	3.38E-5	1.32E-8	9.39E-7	6.23E-10	-8.52E-6	2.62E-5
EP-m	kg N eq	5.63E-4	1.25E-5	1.55E-7	5.76E-4	3.27E-6	4.60E-5	2.70E-7	-1.65E-4	4.61E-4
EP-T	mol N eq	6.17E-3	1.37E-4	1.85E-6	6.31E-3	3.61E-5	5.12E-4	1.82E-6	-1.88E-3	4.98E-3
POCP	kg NMVOC eq	2.28E-3	3.93E-5	6.28E-7	2.32E-3	1.03E-5	1.49E-4	6.27E-7	-9.66E-4	1.51E-3
ADP-mm	kg Sb eq	2.03E-4	1.58E-7	1.97E-8	2.03E-4	4.15E-8	7.20E-7	4.69E-10	-1.68E-6	2.02E-4
ADP-f	MJ	9.68E+0	9.39E-2	1.36E-3	9.77E+0	2.46E-2	3.90E-1	1.37E-3	-2.87E+0	7.32E+0
WDP	m3 depriv.	3.35E-1	2.88E-4	5.22E-5	3.35E-1	7.56E-5	1.02E-2	1.29E-5	-1.44E-1	2.01E-1
PM	disease inc.	3.63E-8	5.52E-10	9.08E-12	3.69E-8	1.45E-10	2.28E-9	9.43E-12	-1.13E-8	2.81E-8
IR	kBq U-235 eq	3.30E-2	4.11E-4	1.02E-6	3.34E-2	1.08E-4	1.52E-3	6.22E-6	-2.51E-3	3.25E-2
ETP-fw	CTUe	2.04E+1	7.63E-2	1.21E-2	2.05E+1	2.00E-2	2.09E+0	1.95E-2	-6.46E+0	1.62E+1
HTP-c	CTUh	2.64E-9	2.71E-12	6.17E-13	2.64E-9	7.12E-13	4.19E-11	4.01E-14	-8.43E-11	2.60E-9
HTP-nc	CTUh	3.42E-8	9.09E-11	1.57E-11	3.44E-8	2.39E-11	1.01E-9	3.82E-12	2.14E-8	5.68E-8
SQP	Pt	8.42E+0	8.04E-2	2.24E-3	8.50E+0	2.11E-2	3.33E-1	3.48E-3	-8.04E+0	8.16E-1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	2.11E+0	1.35E-3	2.40E-2	2.13E+0	3.54E-4	2.69E-2	4.80E-5	-1.29E+0	8.71E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	2.11E+0	1.35E-3	2.40E-2	2.13E+0	3.54E-4	2.69E-2	4.80E-5	-1.29E+0	8.71E-1
PENRE	MJ	1.03E+1	9.97E-2	1.44E-3	1.04E+1	2.62E-2	4.14E-1	1.46E-3	-3.06E+0	7.81E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.03E+1	9.97E-2	1.44E-3	1.04E+1	2.62E-2	4.14E-1	1.46E-3	-3.06E+0	7.81E+0
PET	MJ	1.24E+1	1.01E-1	2.55E-2	1.26E+1	2.65E-2	4.41E-1	1.50E-3	-4.35E+0	8.68E+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	7.37E-3	1.06E-5	1.46E-6	7.38E-3	2.79E-6	2.98E-4	1.66E-6	-2.13E-3	5.55E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	4.64E-5	2.40E-7	2.73E-13	4.66E-5	6.30E-8	7.97E-7	1.70E-9	-1.64E-5	3.11E-5
NHWD	kg	1.50E-1	5.82E-3	1.05E-6	1.55E-1	1.53E-3	1.83E-2	6.11E-3	-2.07E-2	1.61E-1
RWD	kg	3.08E-5	6.39E-7	1.10E-13	3.14E-5	1.68E-7	1.86E-6	8.88E-9	-3.52E-6	2.99E-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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