

Environmental Profile

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

Ecochain v3.5.80



Product: 3025908 - Gutter Support Bracket LGY 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	6.15E-3	1.45E-4	5.51E-1	1.63E-3	1.42E-1	5.11E-4	-1.94E-1	5.01E-1
GWP-f	kg CO2 eq	6.06E-1	6.15E-3	1.46E-4	6.12E-1	1.63E-3	6.87E-2	5.10E-4	-2.12E-1	4.71E-1
GWP-b	kg CO2 eq	-6.19E-2	3.73E-6	-1.54E-6	-6.19E-2	9.91E-7	7.37E-2	6.19E-7	1.76E-2	2.95E-2
GWP-luluc	kg CO2 eq	6.48E-4	2.18E-6	1.49E-7	6.50E-4	5.78E-7	2.56E-5	1.44E-8	-1.04E-4	5.73E-4
ODP	kg CFC11 eq	1.03E-7	1.42E-9	8.26E-12	1.04E-7	3.76E-10	7.10E-9	1.91E-11	-3.95E-8	7.25E-8
AP	mol H+ eq	3.11E-3	3.50E-5	1.47E-6	3.14E-3	9.30E-6	1.74E-4	4.67E-7	-8.57E-4	2.47E-3
EP-fw	kg P eq	3.37E-5	5.06E-8	8.24E-9	3.38E-5	1.34E-8	9.51E-7	6.33E-10	-8.56E-6	2.62E-5
EP-m	kg N eq	5.62E-4	1.25E-5	1.55E-7	5.75E-4	3.33E-6	4.63E-5	2.75E-7	-1.65E-4	4.60E-4
EP-T	mol N eq	6.13E-3	1.38E-4	1.85E-6	6.27E-3	3.67E-5	5.16E-4	1.85E-6	-1.88E-3	4.94E-3
POCP	kg NMVOC eq	2.27E-3	3.95E-5	6.28E-7	2.31E-3	1.05E-5	1.50E-4	6.37E-7	-9.69E-4	1.50E-3
ADP-mm	kg Sb eq	2.02E-4	1.59E-7	1.97E-8	2.02E-4	4.22E-8	7.26E-7	4.77E-10	-1.71E-6	2.01E-4
ADP-f	MJ	9.71E+0	9.44E-2	1.36E-3	9.80E+0	2.51E-2	3.94E-1	1.39E-3	-2.89E+0	7.33E+0
WDP	m3 depriv.	3.38E-1	2.90E-4	5.22E-5	3.38E-1	7.69E-5	1.04E-2	1.30E-5	-1.46E-1	2.03E-1
PM	disease inc.	3.62E-8	5.55E-10	9.08E-12	3.68E-8	1.47E-10	2.30E-9	9.59E-12	-1.13E-8	2.79E-8
IR	kBq U-235 eq	3.30E-2	4.12E-4	1.02E-6	3.34E-2	1.09E-4	1.54E-3	6.33E-6	-2.56E-3	3.25E-2
ETP-fw	CTUe	2.04E+1	7.66E-2	1.21E-2	2.05E+1	2.03E-2	2.13E+0	1.99E-2	-6.48E+0	1.62E+1
HTP-c	CTUh	2.63E-9	2.73E-12	6.17E-13	2.64E-9	7.24E-13	4.24E-11	4.07E-14	-8.49E-11	2.59E-9
HTP-nc	CTUh	3.42E-8	9.13E-11	1.57E-11	3.43E-8	2.43E-11	1.02E-9	3.89E-12	2.14E-8	5.68E-8
SQP	Pt	8.36E+0	8.07E-2	2.24E-3	8.45E+0	2.14E-2	3.35E-1	3.54E-3	-8.04E+0	7.62E-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	2.14E+0	3.59E-4	2.72E-2	4.89E-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	2.14E+0	3.59E-4	2.72E-2	4.89E-5	-1.29E+0	8.71E-1
PENRE	MJ	1.04E+1	1.00E-1	1.44E-3	1.05E+1	2.66E-2	4.19E-1	1.48E-3	-3.08E+0	7.82E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.04E+1	1.00E-1	1.44E-3	1.05E+1	2.66E-2	4.19E-1	1.48E-3	-3.08E+0	7.82E+0
PET	MJ	1.25E+1	1.02E-1	2.55E-2	1.26E+1	2.70E-2	4.46E-1	1.53E-3	-4.38E+0	8.69E+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	7.38E-3	1.07E-5	1.46E-6	7.40E-3	2.83E-6	3.03E-4	1.69E-6	-2.15E-3	5.55E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	4.62E-5	2.41E-7	2.73E-13	4.65E-5	6.41E-8	8.04E-7	1.73E-9	-1.64E-5	3.09E-5
NHWD	kg	1.48E-1	5.85E-3	1.05E-6	1.54E-1	1.55E-3	1.84E-2	6.21E-3	-2.08E-2	1.59E-1
RWD	kg	3.08E-5	6.42E-7	1.10E-13	3.14E-5	1.70E-7	1.88E-6	9.03E-9	-3.57E-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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