

Environmental Profile

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

Ecochain v3.5.80



Product: 3026172 - PP Bracket GY 110
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]

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Results

Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	1.16E-1	1.45E-3	1.45E-4	1.17E-1	1.29E-3	8.38E-2	6.07E-4	-7.28E-2	1.30E-1
GWP-f	kg CO2 eq	1.48E-1	1.45E-3	1.46E-4	1.50E-1	1.29E-3	4.87E-2	6.07E-4	-7.68E-2	1.24E-1
GWP-b	kg CO2 eq	-3.26E-2	8.78E-7	-1.54E-6	-3.26E-2	7.83E-7	3.51E-2	5.26E-7	4.02E-3	6.48E-3
GWP-luluc	kg CO2 eq	9.86E-5	5.12E-7	1.49E-7	9.92E-5	4.56E-7	7.67E-6	1.07E-8	-5.49E-5	5.24E-5
ODP	kg CFC11 eq	5.68E-9	3.33E-10	8.26E-12	6.03E-9	2.97E-10	1.11E-9	1.53E-11	-4.84E-9	2.60E-9
AP	mol H+ eq	6.35E-4	8.24E-6	1.47E-6	6.45E-4	7.35E-6	4.65E-5	3.66E-7	-2.40E-4	4.59E-4
EP-fw	kg P eq	3.50E-6	1.19E-8	8.24E-9	3.52E-6	1.06E-8	2.26E-7	4.87E-10	-1.44E-6	2.32E-6
EP-m	kg N eq	1.11E-4	2.95E-6	1.55E-7	1.15E-4	2.63E-6	1.40E-5	2.34E-7	-4.70E-5	8.44E-5
EP-T	mol N eq	1.25E-3	3.25E-5	1.85E-6	1.29E-3	2.90E-5	1.54E-4	1.48E-6	-5.30E-4	9.42E-4
POCP	kg NMVOC eq	5.03E-4	9.28E-6	6.28E-7	5.13E-4	8.28E-6	4.79E-5	5.56E-7	-2.27E-4	3.42E-4
ADP-mm	kg Sb eq	2.84E-6	3.74E-8	1.97E-8	2.90E-6	3.34E-8	1.81E-7	3.72E-10	-5.37E-7	2.58E-6
ADP-f	MJ	4.26E+0	2.22E-2	1.36E-3	4.28E+0	1.98E-2	1.38E-1	1.12E-3	-2.12E+0	2.32E+0
WDP	m3 depriv.	8.67E-2	6.81E-5	5.22E-5	8.68E-2	6.08E-5	2.56E-3	7.03E-6	-4.31E-2	4.63E-2
PM	disease inc.	6.51E-9	1.31E-10	9.08E-12	6.65E-9	1.16E-10	7.44E-10	7.68E-12	-2.65E-9	4.87E-9
IR	kBq U-235 eq	3.61E-3	9.70E-5	1.02E-6	3.71E-3	8.65E-5	4.31E-4	5.15E-6	-1.39E-3	2.85E-3
ETP-fw	CTUe	2.31E+0	1.80E-2	1.21E-2	2.34E+0	1.61E-2	1.63E-1	9.34E-4	-8.46E-1	1.68E+0
HTP-c	CTUh	3.61E-10	6.41E-13	6.17E-13	3.62E-10	5.72E-13	2.05E-11	2.83E-14	-2.61E-11	3.57E-10
HTP-nc	CTUh	2.12E-9	2.15E-11	1.57E-11	2.16E-9	1.92E-11	2.44E-10	6.08E-13	2.81E-10	2.70E-9
SQP	Pt	3.28E+0	1.90E-2	2.24E-3	3.31E+0	1.69E-2	1.11E-1	2.86E-3	-3.15E+0	2.82E-1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	9.61E-1	3.18E-4	2.40E-2	9.85E-1	2.84E-4	6.71E-3	4.24E-5	-5.11E-1	4.81E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	9.61E-1	3.18E-4	2.40E-2	9.85E-1	2.84E-4	6.71E-3	4.24E-5	-5.11E-1	4.81E-1
PENRE	MJ	4.57E+0	2.36E-2	1.44E-3	4.59E+0	2.10E-2	1.47E-1	1.18E-3	-2.29E+0	2.47E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	4.57E+0	2.36E-2	1.44E-3	4.59E+0	2.10E-2	1.47E-1	1.18E-3	-2.29E+0	2.47E+0
PET	MJ	5.53E+0	2.39E-2	2.55E-2	5.58E+0	2.13E-2	1.53E-1	1.23E-3	-2.80E+0	2.95E+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	1.55E-3	2.51E-6	1.46E-6	1.56E-3	2.24E-6	7.84E-5	1.37E-6	-7.23E-4	9.16E-4

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.39E-6	5.68E-8	2.73E-13	1.45E-6	5.06E-8	2.37E-7	1.36E-9	-1.31E-6	4.29E-7
NHWD	kg	2.93E-2	1.38E-3	1.05E-6	3.06E-2	1.23E-3	7.23E-3	4.91E-3	-3.64E-3	4.04E-2
RWD	kg	3.35E-6	1.51E-7	1.10E-13	3.50E-6	1.35E-7	5.54E-7	7.27E-9	-1.37E-6	2.82E-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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