

Environmental Profile

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

Ecochain v3.5.80



Product: 3026072 - PP Bracket GY 100 BC
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	8.59E-2	1.15E-3	1.45E-4	8.72E-2	8.96E-4	7.26E-2	4.21E-4	-5.46E-2	1.07E-1
GWP-f	kg CO2 eq	1.19E-1	1.15E-3	1.46E-4	1.20E-1	8.95E-4	3.75E-2	4.21E-4	-5.86E-2	1.00E-1
GWP-b	kg CO2 eq	-3.29E-2	7.00E-7	-1.54E-6	-3.29E-2	5.43E-7	3.51E-2	3.64E-7	4.09E-3	6.35E-3
GWP-luluc	kg CO2 eq	9.20E-5	4.08E-7	1.49E-7	9.25E-5	3.17E-7	5.46E-6	7.62E-9	-5.14E-5	4.69E-5
ODP	kg CFC11 eq	5.12E-9	2.66E-10	8.26E-12	5.40E-9	2.06E-10	8.20E-10	1.06E-11	-4.18E-9	2.25E-9
AP	mol H+ eq	5.37E-4	6.56E-6	1.47E-6	5.45E-4	5.10E-6	3.45E-5	2.55E-7	-1.89E-4	3.96E-4
EP-fw	kg P eq	3.12E-6	9.48E-9	8.24E-9	3.14E-6	7.36E-9	1.63E-7	3.43E-10	-1.24E-6	2.06E-6
EP-m	kg N eq	9.47E-5	2.35E-6	1.55E-7	9.72E-5	1.82E-6	1.05E-5	1.61E-7	-3.80E-5	7.17E-5
EP-T	mol N eq	1.07E-3	2.59E-5	1.85E-6	1.09E-3	2.01E-5	1.16E-4	1.03E-6	-4.30E-4	8.02E-4
POCP	kg NMVOC eq	4.14E-4	7.40E-6	6.28E-7	4.22E-4	5.75E-6	3.57E-5	3.86E-7	-1.81E-4	2.83E-4
ADP-mm	kg Sb eq	2.63E-6	2.98E-8	1.97E-8	2.68E-6	2.32E-8	1.33E-7	2.61E-10	-4.15E-7	2.43E-6
ADP-f	MJ	3.18E+0	1.77E-2	1.36E-3	3.20E+0	1.37E-2	9.92E-2	7.76E-4	-1.55E+0	1.77E+0
WDP	m3 depriv.	6.61E-2	5.43E-5	5.22E-5	6.62E-2	4.22E-5	1.81E-3	5.47E-6	-3.31E-2	3.49E-2
PM	disease inc.	5.64E-9	1.04E-10	9.08E-12	5.75E-9	8.08E-11	5.45E-10	5.34E-12	-2.22E-9	4.16E-9
IR	kBq U-235 eq	3.07E-3	7.73E-5	1.02E-6	3.15E-3	6.00E-5	3.15E-4	3.57E-6	-1.12E-3	2.41E-3
ETP-fw	CTUe	2.21E+0	1.44E-2	1.21E-2	2.24E+0	1.12E-2	1.20E-1	6.49E-4	-7.75E-1	1.60E+0
HTP-c	CTUh	3.57E-10	5.11E-13	6.17E-13	3.58E-10	3.97E-13	1.54E-11	2.01E-14	-2.31E-11	3.50E-10
HTP-nc	CTUh	1.99E-9	1.71E-11	1.57E-11	2.03E-9	1.33E-11	1.80E-10	4.25E-13	3.67E-10	2.59E-9
SQP	Pt	3.26E+0	1.51E-2	2.24E-3	3.28E+0	1.18E-2	8.01E-2	1.98E-3	-3.14E+0	2.35E-1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.02E+0	2.54E-4	2.40E-2	1.05E+0	1.97E-4	4.82E-3	2.92E-5	-5.04E-1	5.49E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.02E+0	2.54E-4	2.40E-2	1.05E+0	1.97E-4	4.82E-3	2.92E-5	-5.04E-1	5.49E-1
PENRE	MJ	3.41E+0	1.88E-2	1.44E-3	3.43E+0	1.46E-2	1.06E-1	8.23E-4	-1.67E+0	1.89E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	3.41E+0	1.88E-2	1.44E-3	3.43E+0	1.46E-2	1.06E-1	8.23E-4	-1.67E+0	1.89E+0
PET	MJ	4.44E+0	1.90E-2	2.55E-2	4.48E+0	1.48E-2	1.10E-1	8.53E-4	-2.17E+0	2.44E+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	1.25E-3	2.00E-6	1.46E-6	1.26E-3	1.55E-6	5.63E-5	9.49E-7	-5.73E-4	7.42E-4

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.28E-6	4.52E-8	2.73E-13	1.32E-6	3.51E-8	1.75E-7	9.49E-10	-1.18E-6	3.55E-7
NHWD	kg	2.83E-2	1.10E-3	1.05E-6	2.94E-2	8.51E-4	5.36E-3	3.40E-3	-3.19E-3	3.59E-2
RWD	kg	2.87E-6	1.20E-7	1.10E-13	2.99E-6	9.34E-8	4.07E-7	5.04E-9	-1.13E-6	2.36E-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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