

Environmental Profile

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

Ecochain v3.5.80



Product: 3025830 - PP Bracket GY 32 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	2.89E-2	6.09E-4	1.45E-4	2.97E-2	2.63E-4	5.13E-2	1.23E-4	-2.57E-2	5.56E-2
GWP-f	kg CO2 eq	6.20E-2	6.08E-4	1.46E-4	6.28E-2	2.63E-4	1.75E-2	1.23E-4	-2.67E-2	5.39E-2
GWP-b	kg CO2 eq	-3.32E-2	3.69E-7	-1.54E-6	-3.32E-2	1.60E-7	3.38E-2	1.04E-7	1.04E-3	1.64E-3
GWP-luluc	kg CO2 eq	5.82E-5	2.15E-7	1.49E-7	5.85E-5	9.32E-8	1.82E-6	2.63E-9	-2.38E-5	3.67E-5
ODP	kg CFC11 eq	3.54E-9	1.40E-10	8.26E-12	3.69E-9	6.07E-11	3.12E-10	3.14E-12	-2.78E-9	1.28E-9
AP	mol H+ eq	3.16E-4	3.46E-6	1.47E-6	3.20E-4	1.50E-6	1.34E-5	7.73E-8	-9.07E-5	2.45E-4
EP-fw	kg P eq	2.02E-6	5.01E-9	8.24E-9	2.03E-6	2.17E-9	5.67E-8	1.13E-10	-6.46E-7	1.45E-6
EP-m	kg N eq	5.65E-5	1.24E-6	1.55E-7	5.79E-5	5.37E-7	4.21E-6	4.49E-8	-1.98E-5	4.29E-5
EP-T	mol N eq	6.47E-4	1.37E-5	1.85E-6	6.62E-4	5.91E-6	4.67E-5	3.08E-7	-2.27E-4	4.89E-4
POCP	kg NMVOC eq	2.35E-4	3.91E-6	6.28E-7	2.39E-4	1.69E-6	1.40E-5	1.15E-7	-9.62E-5	1.59E-4
ADP-mm	kg Sb eq	1.65E-6	1.57E-8	1.97E-8	1.68E-6	6.81E-9	4.94E-8	8.21E-11	-2.00E-7	1.54E-6
ADP-f	MJ	1.32E+0	9.34E-3	1.36E-3	1.33E+0	4.04E-3	3.46E-2	2.31E-4	-5.77E-1	7.95E-1
WDP	m3 depriv.	2.90E-2	2.87E-5	5.22E-5	2.91E-2	1.24E-5	5.71E-4	2.98E-6	-1.25E-2	1.72E-2
PM	disease inc.	3.68E-9	5.49E-11	9.08E-12	3.74E-9	2.38E-11	2.01E-10	1.59E-12	-1.23E-9	2.74E-9
IR	kBq U-235 eq	1.98E-3	4.08E-5	1.02E-6	2.03E-3	1.77E-5	1.16E-4	1.04E-6	-4.91E-4	1.67E-3
ETP-fw	CTUe	1.32E+0	7.58E-3	1.21E-2	1.34E+0	3.28E-3	4.42E-2	1.93E-4	-4.21E-1	9.67E-1
HTP-c	CTUh	3.32E-10	2.70E-13	6.17E-13	3.33E-10	1.17E-13	6.59E-12	7.00E-15	-1.63E-11	3.23E-10
HTP-nc	CTUh	1.33E-9	9.04E-12	1.57E-11	1.35E-9	3.91E-12	7.02E-11	1.33E-13	5.69E-10	2.00E-9
SQP	Pt	3.03E+0	7.99E-3	2.24E-3	3.04E+0	3.46E-3	2.91E-2	5.85E-4	-2.55E+0	5.24E-1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	4.96E-1	1.34E-4	2.40E-2	5.20E-1	5.80E-5	1.69E-3	7.94E-6	-3.90E-1	1.32E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	4.96E-1	1.34E-4	2.40E-2	5.20E-1	5.80E-5	1.69E-3	7.94E-6	-3.90E-1	1.32E-1
PENRE	MJ	1.42E+0	9.91E-3	1.44E-3	1.43E+0	4.29E-3	3.68E-2	2.46E-4	-6.23E-1	8.46E-1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.42E+0	9.91E-3	1.44E-3	1.43E+0	4.29E-3	3.68E-2	2.46E-4	-6.23E-1	8.46E-1
PET	MJ	1.91E+0	1.00E-2	2.55E-2	1.95E+0	4.35E-3	3.85E-2	2.53E-4	-1.01E+0	9.78E-1
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	6.55E-4	1.06E-6	1.46E-6	6.58E-4	4.57E-7	1.93E-5	2.77E-7	-2.14E-4	4.63E-4

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.00E-6	2.39E-8	2.73E-13	1.02E-6	1.03E-8	6.62E-8	2.94E-10	-9.08E-7	1.93E-7
NHWD	kg	2.59E-2	5.79E-4	1.05E-6	2.65E-2	2.50E-4	2.15E-3	1.00E-3	-2.23E-3	2.77E-2
RWD	kg	1.90E-6	6.35E-8	1.10E-13	1.96E-6	2.75E-8	1.53E-7	1.49E-9	-5.54E-7	1.59E-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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