

Environmental Profile

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

Ecochain v3.5.80



Product: 3026149 - PP Bracket GY 200
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	3.36E-1	4.63E-3	1.45E-4	3.41E-1	4.40E-3	2.65E-1	2.07E-3	-2.29E-1	3.84E-1
GWP-f	kg CO2 eq	4.34E-1	4.63E-3	1.46E-4	4.39E-1	4.40E-3	1.58E-1	2.07E-3	-2.46E-1	3.57E-1
GWP-b	kg CO2 eq	-9.80E-2	2.81E-6	-1.54E-6	-9.80E-2	2.67E-6	1.08E-1	1.80E-6	1.71E-2	2.67E-2
GWP-luluc	kg CO2 eq	2.87E-4	1.64E-6	1.49E-7	2.89E-4	1.56E-6	2.57E-5	3.56E-8	-2.12E-4	1.05E-4
ODP	kg CFC11 eq	1.43E-8	1.07E-9	8.26E-12	1.54E-8	1.01E-9	3.66E-9	5.20E-11	-1.38E-8	6.30E-9
AP	mol H+ eq	1.73E-3	2.64E-5	1.47E-6	1.76E-3	2.50E-5	1.53E-4	1.24E-6	-7.70E-4	1.17E-3
EP-fw	kg P eq	8.96E-6	3.81E-8	8.24E-9	9.01E-6	3.62E-8	7.50E-7	1.63E-9	-4.61E-6	5.19E-6
EP-m	kg N eq	3.09E-4	9.43E-6	1.55E-7	3.19E-4	8.96E-6	4.61E-5	8.05E-7	-1.51E-4	2.24E-4
EP-T	mol N eq	3.44E-3	1.04E-4	1.85E-6	3.54E-3	9.87E-5	5.08E-4	5.04E-6	-1.70E-3	2.46E-3
POCP	kg NMVOC eq	1.45E-3	2.97E-5	6.28E-7	1.48E-3	2.82E-5	1.58E-4	1.89E-6	-7.02E-4	9.63E-4
ADP-mm	kg Sb eq	7.32E-6	1.20E-7	1.97E-8	7.46E-6	1.14E-7	5.95E-7	1.25E-9	-1.75E-6	6.42E-6
ADP-f	MJ	1.37E+1	7.10E-2	1.36E-3	1.38E+1	6.75E-2	4.60E-1	3.80E-3	-7.11E+0	7.19E+0
WDP	m3 depriv.	2.77E-1	2.18E-4	5.22E-5	2.77E-1	2.07E-4	8.67E-3	2.02E-5	-1.45E-1	1.41E-1
PM	disease inc.	1.68E-8	4.18E-10	9.08E-12	1.72E-8	3.97E-10	2.46E-9	2.61E-11	-8.43E-9	1.17E-8
IR	kBq U-235 eq	9.33E-3	3.10E-4	1.02E-6	9.64E-3	2.95E-4	1.43E-3	1.76E-5	-4.90E-3	6.48E-3
ETP-fw	CTUe	6.16E+0	5.77E-2	1.21E-2	6.23E+0	5.48E-2	5.36E-1	3.18E-3	-2.66E+0	4.17E+0
HTP-c	CTUh	3.41E-10	2.05E-12	6.17E-13	3.44E-10	1.95E-12	6.66E-11	9.36E-14	-8.29E-11	3.30E-10
HTP-nc	CTUh	4.69E-9	6.88E-11	1.57E-11	4.78E-9	6.53E-11	7.95E-10	2.05E-12	-1.29E-9	4.35E-9
SQP	Pt	9.85E+0	6.08E-2	2.24E-3	9.92E+0	5.77E-2	3.64E-1	9.74E-3	-1.04E+1	-5.29E-2
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	3.43E+0	1.02E-3	2.40E-2	3.46E+0	9.68E-4	2.22E-2	1.46E-4	-1.71E+0	1.77E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	3.43E+0	1.02E-3	2.40E-2	3.46E+0	9.68E-4	2.22E-2	1.46E-4	-1.71E+0	1.77E+0
PENRE	MJ	1.47E+1	7.54E-2	1.44E-3	1.48E+1	7.16E-2	4.90E-1	4.03E-3	-7.66E+0	7.67E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.47E+1	7.54E-2	1.44E-3	1.48E+1	7.16E-2	4.90E-1	4.03E-3	-7.66E+0	7.67E+0
PET	MJ	1.81E+1	7.64E-2	2.55E-2	1.82E+1	7.26E-2	5.12E-1	4.17E-3	-9.38E+0	9.44E+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	4.67E-3	8.04E-6	1.46E-6	4.68E-3	7.64E-6	2.64E-4	4.68E-6	-2.50E-3	2.46E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	3.07E-6	1.82E-7	2.73E-13	3.25E-6	1.73E-7	7.80E-7	4.58E-9	-2.87E-6	1.34E-6
NHWD	kg	3.46E-2	4.40E-3	1.05E-6	3.90E-2	4.18E-3	2.37E-2	1.67E-2	-1.07E-2	7.28E-2
RWD	kg	8.60E-6	4.83E-7	1.10E-13	9.08E-6	4.59E-7	1.83E-6	2.48E-8	-4.70E-6	6.69E-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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