

Environmental Profile

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

Ecochain v3.5.80



Product: 3026151 - PP Bracket GY 140
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	1.63E-1	2.41E-3	1.45E-4	1.65E-1	1.98E-3	1.52E-1	9.30E-4	-1.14E-1	2.06E-1
GWP-f	kg CO2 eq	2.28E-1	2.41E-3	1.46E-4	2.31E-1	1.97E-3	8.15E-2	9.30E-4	-1.24E-1	1.92E-1
GWP-b	kg CO2 eq	-6.58E-2	1.46E-6	-1.54E-6	-6.58E-2	1.20E-6	7.07E-2	8.08E-7	9.16E-3	1.40E-2
GWP-luluc	kg CO2 eq	1.71E-4	8.54E-7	1.49E-7	1.72E-4	6.99E-7	1.18E-5	1.62E-8	-1.14E-4	7.05E-5
ODP	kg CFC11 eq	8.64E-9	5.56E-10	8.26E-12	9.20E-9	4.55E-10	1.75E-9	2.34E-11	-7.72E-9	3.71E-9
AP	mol H+ eq	9.51E-4	1.37E-5	1.47E-6	9.66E-4	1.12E-5	7.34E-5	5.59E-7	-3.90E-4	6.62E-4
EP-fw	kg P eq	5.33E-6	1.98E-8	8.24E-9	5.35E-6	1.62E-8	3.49E-7	7.36E-10	-2.47E-6	3.25E-6
EP-m	kg N eq	1.73E-4	4.92E-6	1.55E-7	1.78E-4	4.02E-6	2.24E-5	3.60E-7	-7.84E-5	1.27E-4
EP-T	mol N eq	1.93E-3	5.42E-5	1.85E-6	1.98E-3	4.43E-5	2.47E-4	2.26E-6	-8.86E-4	1.39E-3
POCP	kg NMVOC eq	7.85E-4	1.55E-5	6.28E-7	8.01E-4	1.27E-5	7.65E-5	8.50E-7	-3.66E-4	5.25E-4
ADP-mm	kg Sb eq	3.82E-6	6.24E-8	1.97E-8	3.90E-6	5.11E-8	2.82E-7	5.66E-10	-8.62E-7	3.37E-6
ADP-f	MJ	6.73E+0	3.70E-2	1.36E-3	6.77E+0	3.03E-2	2.14E-1	1.71E-3	-3.38E+0	3.63E+0
WDP	m3 depriv.	1.38E-1	1.14E-4	5.22E-5	1.38E-1	9.30E-5	3.96E-3	9.73E-6	-6.98E-2	7.21E-2
PM	disease inc.	9.81E-9	2.18E-10	9.08E-12	1.00E-8	1.78E-10	1.17E-9	1.17E-11	-4.51E-9	6.88E-9
IR	kBq U-235 eq	5.49E-3	1.62E-4	1.02E-6	5.65E-3	1.32E-4	6.74E-4	7.89E-6	-2.43E-3	4.03E-3
ETP-fw	CTUe	3.60E+0	3.01E-2	1.21E-2	3.64E+0	2.46E-2	2.55E-1	1.43E-3	-1.51E+0	2.41E+0
HTP-c	CTUh	3.96E-10	1.07E-12	6.17E-13	3.98E-10	8.76E-13	3.23E-11	4.25E-14	-4.70E-11	3.84E-10
HTP-nc	CTUh	2.81E-9	3.58E-11	1.57E-11	2.86E-9	2.93E-11	3.81E-10	9.24E-13	-8.16E-11	3.19E-9
SQP	Pt	6.41E+0	3.17E-2	2.24E-3	6.44E+0	2.59E-2	1.71E-1	4.37E-3	-6.46E+0	1.83E-1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.54E+0	5.31E-4	2.40E-2	1.56E+0	4.35E-4	1.03E-2	6.54E-5	-1.04E+0	5.30E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.54E+0	5.31E-4	2.40E-2	1.56E+0	4.35E-4	1.03E-2	6.54E-5	-1.04E+0	5.30E-1
PENRE	MJ	7.22E+0	3.93E-2	1.44E-3	7.26E+0	3.22E-2	2.28E-1	1.81E-3	-3.65E+0	3.87E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	7.22E+0	3.93E-2	1.44E-3	7.26E+0	3.22E-2	2.28E-1	1.81E-3	-3.65E+0	3.87E+0
PET	MJ	8.76E+0	3.98E-2	2.55E-2	8.82E+0	3.26E-2	2.38E-1	1.88E-3	-4.69E+0	4.40E+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	2.47E-3	4.19E-6	1.46E-6	2.47E-3	3.43E-6	1.23E-4	2.10E-6	-1.23E-3	1.37E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	2.04E-6	9.47E-8	2.73E-13	2.13E-6	7.75E-8	3.71E-7	2.07E-9	-1.94E-6	6.44E-7
NHWD	kg	3.48E-2	2.29E-3	1.05E-6	3.71E-2	1.88E-3	1.15E-2	7.51E-3	-6.17E-3	5.18E-2
RWD	kg	5.11E-6	2.52E-7	1.10E-13	5.36E-6	2.06E-7	8.69E-7	1.11E-8	-2.41E-6	4.04E-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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