

Environmental Profile

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

Ecochain v3.5.80



Product: 3025504 - PP Bracket WT 40
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	2.50E-2	6.26E-4	1.45E-4	2.57E-2	2.90E-4	5.17E-2	1.36E-4	-2.59E-2	5.19E-2
GWP-f	kg CO2 eq	5.81E-2	6.26E-4	1.46E-4	5.89E-2	2.90E-4	1.79E-2	1.36E-4	-2.69E-2	5.03E-2
GWP-b	kg CO2 eq	-3.32E-2	3.80E-7	-1.54E-6	-3.32E-2	1.76E-7	3.38E-2	1.17E-7	1.03E-3	1.60E-3
GWP-luluc	kg CO2 eq	5.27E-5	2.21E-7	1.49E-7	5.31E-5	1.02E-7	1.92E-6	2.56E-9	-2.43E-5	3.09E-5
ODP	kg CFC11 eq	3.00E-9	1.44E-10	8.26E-12	3.15E-9	6.67E-11	3.19E-10	3.44E-12	-2.27E-9	1.27E-9
AP	mol H+ eq	2.80E-4	3.56E-6	1.47E-6	2.85E-4	1.65E-6	1.37E-5	8.31E-8	-8.93E-5	2.11E-4
EP-fw	kg P eq	1.76E-6	5.15E-9	8.24E-9	1.77E-6	2.38E-9	5.90E-8	1.14E-10	-5.95E-7	1.24E-6
EP-m	kg N eq	5.11E-5	1.28E-6	1.55E-7	5.25E-5	5.90E-7	4.31E-6	5.16E-8	-1.95E-5	3.79E-5
EP-T	mol N eq	5.78E-4	1.41E-5	1.85E-6	5.94E-4	6.50E-6	4.77E-5	3.35E-7	-2.23E-4	4.25E-4
POCP	kg NMVOC eq	2.20E-4	4.02E-6	6.28E-7	2.24E-4	1.86E-6	1.44E-5	1.25E-7	-9.38E-5	1.47E-4
ADP-mm	kg Sb eq	1.24E-6	1.62E-8	1.97E-8	1.28E-6	7.49E-9	5.03E-8	8.57E-11	-1.92E-7	1.15E-6
ADP-f	MJ	1.37E+0	9.60E-3	1.36E-3	1.38E+0	4.44E-3	3.62E-2	2.52E-4	-6.18E-1	8.03E-1
WDP	m3 depriv.	2.89E-2	2.95E-5	5.22E-5	2.90E-2	1.36E-5	6.18E-4	2.11E-6	-1.20E-2	1.76E-2
PM	disease inc.	3.24E-9	5.65E-11	9.08E-12	3.31E-9	2.61E-11	2.07E-10	1.73E-12	-1.20E-9	2.34E-9
IR	kBq U-235 eq	1.75E-3	4.20E-5	1.02E-6	1.79E-3	1.94E-5	1.20E-4	1.15E-6	-4.91E-4	1.44E-3
ETP-fw	CTUe	1.12E+0	7.80E-3	1.21E-2	1.14E+0	3.61E-3	4.51E-2	2.11E-4	-3.81E-1	8.04E-1
HTP-c	CTUh	2.55E-10	2.78E-13	6.17E-13	2.56E-10	1.28E-13	6.29E-12	6.78E-15	-1.60E-11	2.46E-10
HTP-nc	CTUh	1.10E-9	9.30E-12	1.57E-11	1.12E-9	4.30E-12	7.06E-11	1.39E-13	3.82E-10	1.58E-9
SQP	Pt	3.00E+0	8.22E-3	2.24E-3	3.01E+0	3.80E-3	2.99E-2	6.42E-4	-2.55E+0	4.94E-1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	5.22E-1	1.38E-4	2.40E-2	5.46E-1	6.38E-5	1.75E-3	9.28E-6	-3.90E-1	1.58E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	5.22E-1	1.38E-4	2.40E-2	5.46E-1	6.38E-5	1.75E-3	9.28E-6	-3.90E-1	1.58E-1
PENRE	MJ	1.47E+0	1.02E-2	1.44E-3	1.48E+0	4.72E-3	3.85E-2	2.67E-4	-6.67E-1	8.55E-1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.47E+0	1.02E-2	1.44E-3	1.48E+0	4.72E-3	3.85E-2	2.67E-4	-6.67E-1	8.55E-1
PET	MJ	1.99E+0	1.03E-2	2.55E-2	2.02E+0	4.78E-3	4.03E-2	2.77E-4	-1.06E+0	1.01E+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	6.13E-4	1.09E-6	1.46E-6	6.15E-4	5.03E-7	2.06E-5	3.06E-7	-2.14E-4	4.23E-4

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	8.32E-7	2.46E-8	2.73E-13	8.57E-7	1.14E-8	6.74E-8	3.11E-10	-7.80E-7	1.56E-7
NHWD	kg	2.01E-2	5.95E-4	1.05E-6	2.07E-2	2.75E-4	2.21E-3	1.10E-3	-2.10E-3	2.22E-2
RWD	kg	1.67E-6	6.53E-8	1.10E-13	1.74E-6	3.02E-8	1.57E-7	1.63E-9	-5.45E-7	1.38E-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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