

Environmental Profile

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

Ecochain v3.5.71



Product: 3038742 - Irish Acorn Pb Elbow 90° W 1/2"
Unit: 1 piece
Manufacturer: Wavin - UK - Doncaster - Verified

LCA standard: EN15804+A2 (2019)
Standard database: Worldwide - Ecoinvent v 3.6 Cut-Off
Externally verified: Yes
Issue date: 09-02-2023
End of validity: 09-02-2028
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 - UK - Doncaster - Verified (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	2.57E-1	3.30E-3	2.58E-2	2.86E-1	8.71E-4	3.33E-2	4.00E-4	-1.29E-1	1.91E-1
GWP-f	kg CO2 eq	2.56E-1	3.29E-3	2.46E-2	2.84E-1	8.70E-4	3.34E-2	4.00E-4	-1.29E-1	1.90E-1
GWP-b	kg CO2 eq	4.16E-4	1.90E-6	1.24E-3	1.66E-3	5.28E-7	-3.17E-5	4.02E-7	-2.62E-4	1.37E-3
GWP-luluc	kg CO2 eq	1.61E-5	1.20E-6	1.66E-5	3.39E-5	3.08E-7	4.89E-6	7.80E-9	-8.14E-7	3.83E-5
ODP	kg CFC11 eq	3.84E-9	7.56E-10	2.25E-9	6.84E-9	2.00E-10	7.10E-10	1.09E-11	-1.46E-9	6.30E-9
AP	mol H+ eq	1.17E-3	2.19E-5	9.19E-5	1.29E-3	4.96E-6	2.85E-5	2.71E-7	-4.77E-4	8.44E-4
EP-fw	kg P eq	3.03E-6	2.66E-8	2.40E-7	3.30E-6	7.16E-9	1.44E-7	3.58E-10	-1.11E-6	2.34E-6
EP-m	kg N eq	2.17E-4	7.43E-6	1.59E-5	2.40E-4	1.77E-6	8.56E-6	5.13E-7	-9.92E-5	1.52E-4
EP-T	mol N eq	2.21E-3	8.20E-5	1.69E-4	2.46E-3	1.95E-5	9.36E-5	1.08E-6	-9.97E-4	1.58E-3
POCP	kg NMVOC eq	8.36E-4	2.31E-5	5.33E-5	9.12E-4	5.59E-6	2.86E-5	3.92E-7	-3.77E-4	5.69E-4
ADP-mm	kg Sb eq	6.62E-6	8.30E-8	4.72E-7	7.18E-6	2.25E-8	1.05E-7	2.65E-10	-7.88E-7	6.52E-6
ADP-f	MJ	3.55E+0	5.03E-2	3.22E-1	3.92E+0	1.34E-2	8.37E-2	8.04E-4	-1.76E+0	2.26E+0
WDP	m3 depriv.	7.94E-2	1.52E-4	4.33E-3	8.39E-2	4.10E-5	1.84E-3	3.72E-6	-3.16E-2	5.41E-2
PM	disease inc.	1.03E-8	2.90E-10	6.73E-10	1.12E-8	7.85E-11	4.32E-10	5.48E-12	-4.34E-9	7.39E-9
IR	kBq U-235 eq	1.42E-3	2.20E-4	3.35E-4	1.98E-3	5.84E-5	2.54E-4	3.88E-6	-1.04E-4	2.19E-3
ETP-fw	CTUe	6.68E-1	4.06E-2	5.24E-1	1.23E+0	1.08E-2	1.44E-1	1.70E-3	-9.47E-2	1.29E+0
HTP-c	CTUh	5.24E-11	1.47E-12	2.10E-11	7.49E-11	3.86E-13	1.15E-11	2.13E-14	-1.03E-11	7.65E-11
HTP-nc	CTUh	8.65E-10	4.80E-11	4.64E-10	1.38E-9	1.29E-11	1.54E-10	6.84E-13	-2.20E-10	1.33E-9
SQP	Pt	1.80E-1	4.19E-2	6.80E-2	2.90E-1	1.14E-2	6.52E-2	2.04E-3	-9.68E-3	3.59E-1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	4.03E-2	7.09E-4	1.17E+0	1.21E+0	1.92E-4	4.24E-3	3.71E-5	-8.50E-3	1.21E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	4.03E-2	7.09E-4	1.17E+0	1.21E+0	1.92E-4	4.24E-3	3.71E-5	-8.50E-3	1.21E+0
PENRE	MJ	3.83E+0	5.34E-2	3.50E-1	4.23E+0	1.42E-2	8.92E-2	8.53E-4	-1.90E+0	2.43E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	3.83E+0	5.34E-2	3.50E-1	4.23E+0	1.42E-2	8.92E-2	8.53E-4	-1.90E+0	2.43E+0
PET	MJ	3.87E+0	5.41E-2	1.52E+0	5.44E+0	1.44E-2	9.35E-2	8.90E-4	-1.91E+0	3.64E+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	1.89E-3	5.59E-6	1.39E-4	2.04E-3	1.51E-6	6.39E-5	1.00E-6	-7.40E-4	1.36E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	4.98E-7	1.26E-7	2.45E-7	8.69E-7	3.42E-8	1.45E-7	9.59E-10	-2.67E-7	7.82E-7
NHWD	kg	1.07E-2	3.03E-3	1.16E-3	1.49E-2	8.28E-4	4.23E-3	3.50E-3	-1.13E-3	2.23E-2
RWD	kg	1.79E-6	3.42E-7	1.85E-7	2.32E-6	9.08E-8	3.18E-7	5.30E-9	-1.39E-7	2.59E-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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