

Environmental Profile

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

Ecochain v3.5.71



Product: 3038745 - Irish Acorn Reducer W Sp/S 1ix3/4i
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	7.49E-1	4.65E-3	5.69E-2	8.11E-1	3.82E-3	2.15E-2	3.06E-4	-2.28E-1	6.09E-1
GWP-f	kg CO2 eq	7.48E-1	4.65E-3	5.26E-2	8.05E-1	3.82E-3	2.17E-2	3.06E-4	-2.25E-1	6.07E-1
GWP-b	kg CO2 eq	4.80E-4	2.77E-6	4.35E-3	4.83E-3	2.32E-6	-1.41E-4	3.72E-7	-2.74E-3	1.95E-3
GWP-luluc	kg CO2 eq	8.83E-4	1.66E-6	1.65E-5	9.01E-4	1.35E-6	5.50E-6	2.30E-8	-2.61E-4	6.47E-4
ODP	kg CFC11 eq	3.86E-8	1.07E-9	6.26E-9	4.60E-8	8.80E-10	8.00E-10	3.37E-11	-1.10E-8	3.67E-8
AP	mol H+ eq	5.10E-2	2.83E-5	1.12E-4	5.11E-2	2.17E-5	4.51E-5	7.87E-7	-4.09E-3	4.71E-2
EP-fw	kg P eq	4.05E-4	3.80E-8	3.39E-7	4.06E-4	3.14E-8	2.40E-7	9.53E-10	-3.31E-5	3.73E-4
EP-m	kg N eq	2.70E-3	9.89E-6	2.55E-5	2.74E-3	7.78E-6	1.15E-5	5.23E-7	-4.96E-4	2.26E-3
EP-T	mol N eq	3.91E-2	1.09E-4	2.40E-4	3.94E-2	8.57E-5	1.29E-4	3.02E-6	-6.73E-3	3.29E-2
POCP	kg NMVOC eq	1.05E-2	3.10E-5	7.84E-5	1.06E-2	2.45E-5	3.75E-5	9.24E-7	-1.62E-3	9.05E-3
ADP-mm	kg Sb eq	3.22E-3	1.19E-7	4.38E-7	3.22E-3	9.88E-8	1.89E-7	7.61E-10	-1.50E-3	1.72E-3
ADP-f	MJ	8.69E+0	7.12E-2	7.51E-1	9.52E+0	5.86E-2	8.57E-2	2.32E-3	-2.90E+0	6.76E+0
WDP	m3 depriv.	5.36E-1	2.17E-4	6.86E-3	5.44E-1	1.80E-4	1.10E-3	8.47E-5	-1.50E-1	3.95E-1
PM	disease inc.	1.18E-7	4.16E-10	8.22E-10	1.19E-7	3.45E-10	6.57E-10	1.54E-11	-1.67E-8	1.04E-7
IR	kBq U-235 eq	2.71E-2	3.11E-4	6.12E-4	2.80E-2	2.56E-4	3.21E-4	9.88E-6	-1.07E-2	1.79E-2
ETP-fw	CTUe	4.98E+2	5.77E-2	5.56E-1	4.99E+2	4.76E-2	2.27E-1	2.21E-3	-7.04E+1	4.29E+2
HTP-c	CTUh	7.26E-9	2.07E-12	2.34E-11	7.28E-9	1.69E-12	1.10E-11	4.04E-14	-1.58E-9	5.71E-9
HTP-nc	CTUh	5.83E-7	6.85E-11	4.83E-10	5.84E-7	5.67E-11	2.51E-10	1.26E-12	-1.01E-7	4.83E-7
SQP	Pt	7.75E+0	6.03E-2	8.07E-2	7.89E+0	5.01E-2	1.07E-1	5.09E-3	-1.41E+0	6.65E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.63E+0	1.01E-3	1.01E+0	2.65E+0	8.41E-4	7.38E-3	3.72E-5	-4.23E-1	2.23E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.63E+0	1.01E-3	1.01E+0	2.65E+0	8.41E-4	7.38E-3	3.72E-5	-4.23E-1	2.23E+0
PENRE	MJ	9.29E+0	7.56E-2	8.25E-1	1.02E+1	6.22E-2	9.11E-2	2.47E-3	-3.11E+0	7.24E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	9.29E+0	7.56E-2	8.25E-1	1.02E+1	6.22E-2	9.11E-2	2.47E-3	-3.11E+0	7.24E+0
PET	MJ	1.09E+1	7.66E-2	1.84E+0	1.28E+1	6.31E-2	9.85E-2	2.50E-3	-3.53E+0	9.47E+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	1.41E-2	8.00E-6	2.01E-4	1.43E-2	6.63E-6	4.46E-5	2.57E-6	-4.01E-3	1.03E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	4.02E-4	1.81E-7	8.39E-7	4.03E-4	1.50E-7	1.89E-7	3.33E-9	-1.89E-4	2.14E-4
NHWD	kg	2.00E-1	4.36E-3	3.90E-3	2.08E-1	3.63E-3	3.67E-3	1.46E-2	-6.59E-2	1.64E-1
RWD	kg	2.31E-5	4.84E-7	6.34E-7	2.42E-5	3.99E-7	3.97E-7	1.53E-8	-8.57E-6	1.65E-5
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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