

Environmental Profile

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

Ecochain v3.5.71



Product: 3038736 - Straight Conversion 1/2"Irishx15mm
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	2.63E-1	3.61E-3	2.19E-2	2.88E-1	8.71E-4	3.33E-2	4.00E-4	-1.32E-1	1.91E-1
GWP-f	kg CO2 eq	2.62E-1	3.60E-3	2.08E-2	2.86E-1	8.70E-4	3.34E-2	4.00E-4	-1.32E-1	1.89E-1
GWP-b	kg CO2 eq	4.19E-4	2.08E-6	1.18E-3	1.60E-3	5.28E-7	-3.17E-5	4.02E-7	-2.62E-4	1.31E-3
GWP-luluc	kg CO2 eq	1.62E-5	1.31E-6	1.26E-5	3.01E-5	3.08E-7	4.89E-6	7.80E-9	-8.19E-7	3.45E-5
ODP	kg CFC11 eq	3.87E-9	8.27E-10	2.01E-9	6.71E-9	2.00E-10	7.10E-10	1.09E-11	-1.46E-9	6.17E-9
AP	mol H+ eq	1.19E-3	2.39E-5	7.12E-5	1.29E-3	4.96E-6	2.85E-5	2.71E-7	-4.83E-4	8.40E-4
EP-fw	kg P eq	3.15E-6	2.91E-8	1.90E-7	3.37E-6	7.16E-9	1.44E-7	3.58E-10	-1.16E-6	2.36E-6
EP-m	kg N eq	2.22E-4	8.12E-6	1.28E-5	2.43E-4	1.77E-6	8.56E-6	5.13E-7	-1.02E-4	1.52E-4
EP-T	mol N eq	2.26E-3	8.96E-5	1.34E-4	2.48E-3	1.95E-5	9.36E-5	1.08E-6	-1.02E-3	1.58E-3
POCP	kg NMVOC eq	8.47E-4	2.53E-5	4.23E-5	9.14E-4	5.59E-6	2.86E-5	3.92E-7	-3.82E-4	5.67E-4
ADP-mm	kg Sb eq	6.61E-6	9.08E-8	3.55E-7	7.06E-6	2.25E-8	1.05E-7	2.65E-10	-8.18E-7	6.37E-6
ADP-f	MJ	3.57E+0	5.50E-2	2.77E-1	3.91E+0	1.34E-2	8.37E-2	8.04E-4	-1.77E+0	2.24E+0
WDP	m3 depriv.	8.23E-2	1.66E-4	3.48E-3	8.59E-2	4.10E-5	1.84E-3	3.72E-6	-3.28E-2	5.50E-2
PM	disease inc.	1.04E-8	3.18E-10	5.21E-10	1.12E-8	7.85E-11	4.32E-10	5.48E-12	-4.41E-9	7.36E-9
IR	kBq U-235 eq	1.44E-3	2.40E-4	2.75E-4	1.96E-3	5.84E-5	2.54E-4	3.88E-6	-1.04E-4	2.17E-3
ETP-fw	CTUe	6.80E-1	4.44E-2	3.99E-1	1.12E+0	1.08E-2	1.44E-1	1.70E-3	-9.68E-2	1.18E+0
HTP-c	CTUh	5.42E-11	1.61E-12	1.61E-11	7.19E-11	3.86E-13	1.15E-11	2.13E-14	-1.06E-11	7.32E-11
HTP-nc	CTUh	8.85E-10	5.25E-11	3.53E-10	1.29E-9	1.29E-11	1.54E-10	6.84E-13	-2.25E-10	1.23E-9
SQP	Pt	1.81E-1	4.59E-2	5.25E-2	2.79E-1	1.14E-2	6.52E-2	2.04E-3	-9.72E-3	3.48E-1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	4.10E-2	7.76E-4	8.74E-1	9.15E-1	1.92E-4	4.24E-3	3.71E-5	-8.57E-3	9.11E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	4.10E-2	7.76E-4	8.74E-1	9.15E-1	1.92E-4	4.24E-3	3.71E-5	-8.57E-3	9.11E-1
PENRE	MJ	3.85E+0	5.84E-2	3.01E-1	4.21E+0	1.42E-2	8.92E-2	8.53E-4	-1.91E+0	2.40E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	3.85E+0	5.84E-2	3.01E-1	4.21E+0	1.42E-2	8.92E-2	8.53E-4	-1.91E+0	2.40E+0
PET	MJ	3.89E+0	5.92E-2	1.17E+0	5.13E+0	1.44E-2	9.35E-2	8.90E-4	-1.92E+0	3.31E+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	1.96E-3	6.12E-6	1.10E-4	2.08E-3	1.51E-6	6.39E-5	1.00E-6	-7.68E-4	1.37E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	4.92E-7	1.38E-7	2.31E-7	8.61E-7	3.42E-8	1.45E-7	9.59E-10	-2.67E-7	7.74E-7
NHWD	kg	1.10E-2	3.31E-3	1.09E-3	1.54E-2	8.28E-4	4.23E-3	3.50E-3	-1.15E-3	2.29E-2
RWD	kg	1.81E-6	3.74E-7	1.74E-7	2.36E-6	9.08E-8	3.18E-7	5.30E-9	-1.39E-7	2.64E-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



Ecochain Technologies BV
H.J.E. Wenckebachweg 123, 1096 AM Amsterdam, The Netherlands
<https://www.ecochain.com>
+31 20 3035 777