

Environmental Profile

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

Ecochain v3.5.71



Product: 3038739 - Elbow 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	2.67E-1	3.70E-3	2.28E-2	2.93E-1	8.97E-4	3.41E-2	4.11E-4	-1.34E-1	1.95E-1
GWP-f	kg CO2 eq	2.66E-1	3.70E-3	2.16E-2	2.92E-1	8.96E-4	3.41E-2	4.11E-4	-1.34E-1	1.93E-1
GWP-b	kg CO2 eq	4.39E-4	2.14E-6	1.25E-3	1.69E-3	5.44E-7	-3.27E-5	4.14E-7	-2.71E-4	1.39E-3
GWP-luluc	kg CO2 eq	1.65E-5	1.34E-6	1.27E-5	3.06E-5	3.17E-7	5.04E-6	8.02E-9	-8.29E-7	3.51E-5
ODP	kg CFC11 eq	3.91E-9	8.48E-10	2.11E-9	6.87E-9	2.07E-10	7.32E-10	1.12E-11	-1.49E-9	6.33E-9
AP	mol H+ eq	1.22E-3	2.46E-5	7.26E-5	1.32E-3	5.11E-6	2.94E-5	2.79E-7	-4.94E-4	8.60E-4
EP-fw	kg P eq	3.17E-6	2.98E-8	1.94E-7	3.39E-6	7.38E-9	1.48E-7	3.69E-10	-1.16E-6	2.39E-6
EP-m	kg N eq	2.25E-4	8.34E-6	1.31E-5	2.47E-4	1.83E-6	8.82E-6	5.27E-7	-1.03E-4	1.55E-4
EP-T	mol N eq	2.29E-3	9.20E-5	1.37E-4	2.52E-3	2.01E-5	9.64E-5	1.11E-6	-1.04E-3	1.60E-3
POCP	kg NMVOC eq	8.66E-4	2.60E-5	4.34E-5	9.35E-4	5.76E-6	2.95E-5	4.04E-7	-3.91E-4	5.80E-4
ADP-mm	kg Sb eq	6.67E-6	9.31E-8	3.59E-7	7.12E-6	2.32E-8	1.08E-7	2.72E-10	-8.19E-7	6.43E-6
ADP-f	MJ	3.67E+0	5.64E-2	2.88E-1	4.01E+0	1.38E-2	8.64E-2	8.27E-4	-1.81E+0	2.30E+0
WDP	m3 depriv.	8.30E-2	1.70E-4	3.57E-3	8.68E-2	4.22E-5	1.90E-3	3.82E-6	-3.30E-2	5.57E-2
PM	disease inc.	1.06E-8	3.26E-10	5.32E-10	1.15E-8	8.09E-11	4.46E-10	5.64E-12	-4.50E-9	7.52E-9
IR	kBq U-235 eq	1.46E-3	2.46E-4	2.84E-4	1.99E-3	6.01E-5	2.62E-4	3.99E-6	-1.06E-4	2.21E-3
ETP-fw	CTUe	6.93E-1	4.55E-2	4.06E-1	1.14E+0	1.12E-2	1.48E-1	1.75E-3	-9.81E-2	1.21E+0
HTP-c	CTUh	5.56E-11	1.65E-12	1.64E-11	7.36E-11	3.98E-13	1.19E-11	2.19E-14	-1.07E-11	7.52E-11
HTP-nc	CTUh	9.03E-10	5.38E-11	3.59E-10	1.32E-9	1.33E-11	1.59E-10	7.03E-13	-2.28E-10	1.26E-9
SQP	Pt	1.86E-1	4.71E-2	5.35E-2	2.86E-1	1.18E-2	6.73E-2	2.10E-3	-9.88E-3	3.58E-1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	4.19E-2	7.96E-4	8.83E-1	9.26E-1	1.97E-4	4.38E-3	3.82E-5	-8.77E-3	9.22E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	4.19E-2	7.96E-4	8.83E-1	9.26E-1	1.97E-4	4.38E-3	3.82E-5	-8.77E-3	9.22E-1
PENRE	MJ	3.95E+0	5.99E-2	3.14E-1	4.33E+0	1.46E-2	9.20E-2	8.77E-4	-1.96E+0	2.47E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	3.95E+0	5.99E-2	3.14E-1	4.33E+0	1.46E-2	9.20E-2	8.77E-4	-1.96E+0	2.47E+0
PET	MJ	3.99E+0	6.07E-2	1.20E+0	5.25E+0	1.48E-2	9.64E-2	9.15E-4	-1.97E+0	3.39E+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	1.98E-3	6.27E-6	1.13E-4	2.10E-3	1.56E-6	6.55E-5	1.03E-6	-7.72E-4	1.39E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	5.06E-7	1.41E-7	2.45E-7	8.92E-7	3.52E-8	1.49E-7	9.86E-10	-2.73E-7	8.05E-7
NHWD	kg	1.14E-2	3.40E-3	1.15E-3	1.59E-2	8.53E-4	4.35E-3	3.60E-3	-1.17E-3	2.36E-2
RWD	kg	1.83E-6	3.84E-7	1.85E-7	2.40E-6	9.36E-8	3.28E-7	5.45E-9	-1.41E-7	2.68E-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