

Environmental Profile

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

Ecochain v3.5.71



Product: 3039854 - Irish Pb Pipe 1i W Barrier L=6
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	4.97E+0	1.04E-1	5.82E-1	5.66E+0	3.17E-2	8.76E-1	1.37E-2	-2.60E+0	3.98E+0
GWP-f	kg CO2 eq	4.95E+0	1.04E-1	5.39E-1	5.59E+0	3.17E-2	8.77E-1	1.37E-2	-2.59E+0	3.92E+0
GWP-b	kg CO2 eq	2.16E-2	5.91E-5	4.28E-2	6.44E-2	1.92E-5	-1.24E-3	1.38E-5	-1.02E-2	5.30E-2
GWP-luluc	kg CO2 eq	3.79E-4	3.83E-5	1.90E-4	6.07E-4	1.12E-5	1.90E-4	2.67E-7	-3.48E-5	7.74E-4
ODP	kg CFC11 eq	6.98E-8	2.39E-8	6.26E-8	1.56E-7	7.30E-9	2.79E-8	3.76E-10	-4.70E-8	1.45E-7
AP	mol H+ eq	3.24E-2	7.31E-4	1.24E-3	3.43E-2	1.81E-4	1.05E-3	9.30E-6	-1.30E-2	2.26E-2
EP-fw	kg P eq	2.58E-5	8.36E-7	3.67E-6	3.03E-5	2.61E-7	5.58E-6	1.23E-8	-2.81E-6	3.34E-5
EP-m	kg N eq	3.79E-3	2.43E-4	2.71E-4	4.30E-3	6.46E-5	3.09E-4	1.71E-5	-1.73E-3	2.96E-3
EP-T	mol N eq	4.17E-2	2.69E-3	2.59E-3	4.70E-2	7.12E-4	3.38E-3	3.71E-5	-1.89E-2	3.22E-2
POCP	kg NMVOC eq	2.19E-2	7.55E-4	8.42E-4	2.35E-2	2.03E-4	1.05E-3	1.35E-5	-1.04E-2	1.44E-2
ADP-mm	kg Sb eq	3.71E-5	2.60E-6	5.11E-6	4.48E-5	8.20E-7	4.04E-6	9.10E-9	-8.62E-7	4.88E-5
ADP-f	MJ	1.09E+2	1.59E+0	7.64E+0	1.18E+2	4.86E-1	3.20E+0	2.76E-2	-5.67E+1	6.47E+1
WDP	m3 depriv.	9.39E-1	4.76E-3	7.30E-2	1.02E+0	1.49E-3	6.85E-2	1.28E-4	-2.75E-1	8.12E-1
PM	disease inc.	2.49E-7	9.11E-9	9.10E-9	2.67E-7	2.86E-9	1.65E-8	1.89E-10	-1.10E-7	1.77E-7
IR	kBq U-235 eq	2.25E-2	6.93E-3	6.39E-3	3.58E-2	2.13E-3	9.76E-3	1.33E-4	-3.24E-3	4.46E-2
ETP-fw	CTUe	1.52E+1	1.28E+0	6.31E+0	2.28E+1	3.95E-1	5.46E+0	6.45E-2	-1.91E+0	2.68E+1
HTP-c	CTUh	1.47E-9	4.67E-11	2.64E-10	1.78E-9	1.41E-11	4.41E-10	7.31E-13	-1.85E-10	2.05E-9
HTP-nc	CTUh	2.13E-8	1.51E-9	5.51E-9	2.83E-8	4.71E-10	5.78E-9	2.44E-11	-4.60E-9	3.00E-8
SQP	Pt	4.54E+0	1.31E+0	8.98E-1	6.74E+0	4.16E-1	2.50E+0	7.03E-2	-2.70E-1	9.46E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.12E+0	2.23E-2	1.20E+1	1.31E+1	6.98E-3	1.64E-1	1.27E-3	-2.77E-1	1.30E+1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.12E+0	2.23E-2	1.20E+1	1.31E+1	6.98E-3	1.64E-1	1.27E-3	-2.77E-1	1.30E+1
PENRE	MJ	1.17E+2	1.69E+0	8.38E+0	1.27E+2	5.16E-1	3.41E+0	2.93E-2	-6.11E+1	6.94E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.17E+2	1.69E+0	8.38E+0	1.27E+2	5.16E-1	3.41E+0	2.93E-2	-6.11E+1	6.94E+1
PET	MJ	1.18E+2	1.71E+0	2.04E+1	1.40E+2	5.23E-1	3.57E+0	3.06E-2	-6.14E+1	8.24E+1
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	2.25E-2	1.75E-4	2.16E-3	2.48E-2	5.51E-5	1.99E-3	3.44E-5	-5.85E-3	2.10E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.25E-5	3.95E-6	8.26E-6	2.47E-5	1.24E-6	5.29E-6	3.30E-8	-7.21E-6	2.40E-5
NHWD	kg	3.47E-1	9.45E-2	3.85E-2	4.80E-1	3.02E-2	1.53E-1	1.21E-1	-2.77E-2	7.57E-1
RWD	kg	2.26E-5	1.08E-5	6.25E-6	3.97E-5	3.31E-6	1.22E-5	1.82E-7	-3.66E-6	5.17E-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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