

Environmental Profile

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

Ecochain v3.5.71



Product: 3038782 - Irish Barrier Pipe W 3/4" Barrier L=50
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	2.40E+1	5.00E-1	3.26E+0	2.78E+1	1.54E-1	4.79E+0	6.69E-2	-1.29E+1	1.98E+1
GWP-f	kg CO2 eq	2.40E+1	5.00E-1	3.03E+0	2.76E+1	1.53E-1	4.55E+0	6.69E-2	-1.28E+1	1.96E+1
GWP-b	kg CO2 eq	-3.93E-2	2.83E-4	2.31E-1	1.92E-1	9.32E-5	2.46E-1	6.68E-5	-1.61E-1	2.77E-1
GWP-luluc	kg CO2 eq	1.98E-3	1.83E-4	1.16E-3	3.33E-3	5.43E-5	8.44E-4	1.29E-6	-1.28E-4	4.10E-3
ODP	kg CFC11 eq	2.35E-7	1.14E-7	3.44E-7	6.94E-7	3.54E-8	1.26E-7	1.82E-9	-1.95E-7	6.62E-7
AP	mol H+ eq	1.56E-1	3.50E-3	7.40E-3	1.67E-1	8.74E-4	4.96E-3	4.50E-5	-6.32E-2	1.10E-1
EP-fw	kg P eq	1.30E-4	4.01E-6	2.15E-5	1.55E-4	1.26E-6	2.56E-5	5.95E-8	-1.15E-5	1.71E-4
EP-m	kg N eq	1.84E-2	1.17E-3	1.56E-3	2.11E-2	3.13E-4	1.48E-3	8.30E-5	-8.43E-3	1.46E-2
EP-T	mol N eq	2.03E-1	1.29E-2	1.52E-2	2.31E-1	3.45E-3	1.61E-2	1.79E-4	-9.21E-2	1.58E-1
POCP	kg NMVOC eq	1.06E-1	3.62E-3	4.91E-3	1.15E-1	9.85E-4	4.97E-3	6.53E-5	-5.05E-2	7.02E-2
ADP-mm	kg Sb eq	1.98E-4	1.25E-5	3.16E-5	2.42E-4	3.97E-6	1.91E-5	4.40E-8	-2.76E-6	2.62E-4
ADP-f	MJ	5.34E+2	7.61E+0	4.25E+1	5.84E+2	2.35E+0	1.51E+1	1.34E-1	-2.79E+2	3.22E+2
WDP	m3 depriv.	4.84E+0	2.28E-2	4.22E-1	5.28E+0	7.23E-3	3.15E-1	6.18E-4	-1.25E+0	4.36E+0
PM	disease inc.	1.21E-6	4.37E-8	5.43E-8	1.30E-6	1.38E-8	7.74E-8	9.13E-10	-5.36E-7	8.60E-7
IR	kBq U-235 eq	1.13E-1	3.32E-2	3.64E-2	1.83E-1	1.03E-2	4.60E-2	6.45E-4	-1.32E-2	2.27E-1
ETP-fw	CTUe	7.55E+1	6.12E+0	3.83E+1	1.20E+2	1.91E+0	2.30E+1	2.75E-1	-8.81E+0	1.36E+2
HTP-c	CTUh	7.35E-9	2.24E-10	1.59E-9	9.16E-9	6.80E-11	2.12E-9	3.53E-12	-8.73E-10	1.05E-8
HTP-nc	CTUh	1.06E-7	7.22E-9	3.35E-8	1.47E-7	2.28E-9	2.73E-8	1.12E-10	-1.95E-8	1.57E-7
SQP	Pt	3.49E+1	6.29E+0	5.37E+0	4.66E+1	2.01E+0	2.76E+0	3.40E-1	-1.69E+0	5.00E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	7.23E+0	1.07E-1	7.50E+1	8.23E+1	3.38E-2	-5.76E-1	6.14E-3	-1.40E+0	8.04E+1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	7.23E+0	1.07E-1	7.50E+1	8.23E+1	3.38E-2	-5.76E-1	6.14E-3	-1.40E+0	8.04E+1
PENRE	MJ	5.73E+2	8.08E+0	4.66E+1	6.28E+2	2.50E+0	1.61E+1	1.42E-1	-3.01E+2	3.46E+2
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	5.73E+2	8.08E+0	4.66E+1	6.28E+2	2.50E+0	1.61E+1	1.42E-1	-3.01E+2	3.46E+2
PET	MJ	5.81E+2	8.18E+0	1.22E+2	7.11E+2	2.53E+0	1.55E+1	1.48E-1	-3.03E+2	4.26E+2
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	1.15E-1	8.41E-4	1.26E-2	1.28E-1	2.66E-4	9.23E-3	1.67E-4	-2.79E-2	1.10E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	6.08E-5	1.89E-5	4.47E-5	1.24E-4	6.02E-6	2.48E-5	1.60E-7	-3.83E-5	1.17E-4
NHWD	kg	1.71E+0	4.53E-1	2.09E-1	2.37E+0	1.46E-1	7.52E-1	5.83E-1	-1.31E-1	3.72E+0
RWD	kg	1.14E-4	5.18E-5	3.38E-5	2.00E-4	1.60E-5	5.77E-5	8.82E-7	-1.61E-5	2.58E-4
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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