

Environmental Profile

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

Ecochain v3.5.71



Product: 3038781 - Irish Barrier Pipe W 1" Barrier L=25
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	1.95E+1	4.39E-1	2.53E+0	2.25E+1	1.29E-1	5.95E+0	5.60E-2	-1.19E+1	1.68E+1
GWP-f	kg CO2 eq	2.07E+1	4.39E-1	2.35E+0	2.35E+1	1.29E-1	3.71E+0	5.60E-2	-1.08E+1	1.66E+1
GWP-b	kg CO2 eq	-1.16E+0	2.49E-4	1.76E-1	-9.82E-1	7.82E-5	2.23E+0	5.61E-5	-1.04E+0	2.15E-1
GWP-luluc	kg CO2 eq	2.20E-3	1.61E-4	9.48E-4	3.31E-3	4.56E-5	2.31E-4	1.09E-6	-1.42E-4	3.44E-3
ODP	kg CFC11 eq	2.12E-7	1.01E-7	2.64E-7	5.77E-7	2.97E-8	9.09E-8	1.53E-9	-1.66E-7	5.33E-7
AP	mol H+ eq	1.35E-1	3.07E-3	5.95E-3	1.44E-1	7.33E-4	3.33E-3	3.78E-5	-5.38E-2	9.45E-2
EP-fw	kg P eq	1.15E-4	3.52E-6	1.71E-5	1.35E-4	1.06E-6	1.50E-5	5.00E-8	-9.18E-6	1.42E-4
EP-m	kg N eq	1.60E-2	1.02E-3	1.24E-3	1.83E-2	2.62E-4	1.02E-3	7.04E-5	-7.18E-3	1.25E-2
EP-T	mol N eq	1.77E-1	1.13E-2	1.21E-2	2.00E-1	2.89E-3	1.10E-2	1.51E-4	-7.86E-2	1.35E-1
POCP	kg NMVOC eq	9.24E-2	3.17E-3	3.90E-3	9.95E-2	8.26E-4	3.17E-3	5.48E-5	-4.29E-2	6.06E-2
ADP-mm	kg Sb eq	1.54E-4	1.10E-5	2.59E-5	1.91E-4	3.33E-6	1.36E-5	3.70E-8	-1.72E-6	2.06E-4
ADP-f	MJ	4.55E+2	6.69E+0	3.30E+1	4.95E+2	1.98E+0	1.03E+1	1.12E-1	-2.36E+2	2.72E+2
WDP	m3 depriv.	4.02E+0	2.00E-2	3.34E-1	4.37E+0	6.06E-3	2.26E-1	5.19E-4	-1.01E+0	3.60E+0
PM	disease inc.	1.06E-6	3.84E-8	4.36E-8	1.14E-6	1.16E-8	4.67E-8	7.66E-10	-4.56E-7	7.44E-7
IR	kBq U-235 eq	9.91E-2	2.92E-2	2.86E-2	1.57E-1	8.64E-3	3.21E-2	5.42E-4	-1.01E-2	1.88E-1
ETP-fw	CTUe	6.69E+1	5.38E+0	3.11E+1	1.03E+2	1.60E+0	1.60E+1	2.34E-1	-8.05E+0	1.13E+2
HTP-c	CTUh	6.73E-9	1.96E-10	1.29E-9	8.21E-9	5.71E-11	1.41E-9	2.97E-12	-7.40E-10	8.94E-9
HTP-nc	CTUh	9.23E-8	6.34E-9	2.72E-8	1.26E-7	1.91E-9	2.01E-8	9.46E-11	-1.63E-8	1.32E-7
SQP	Pt	1.23E+2	5.53E+0	4.33E+0	1.33E+2	1.69E+0	-7.29E+1	2.85E-1	-5.10E+0	5.66E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.97E+1	9.38E-2	6.18E+1	8.15E+1	2.83E-2	-1.14E+1	5.17E-3	-2.08E+0	6.81E+1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.97E+1	9.38E-2	6.18E+1	8.15E+1	2.83E-2	-1.14E+1	5.17E-3	-2.08E+0	6.81E+1
PENRE	MJ	4.89E+2	7.10E+0	3.61E+1	5.32E+2	2.10E+0	1.09E+1	1.19E-1	-2.54E+2	2.91E+2
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	4.89E+2	7.10E+0	3.61E+1	5.32E+2	2.10E+0	1.09E+1	1.19E-1	-2.54E+2	2.91E+2
PET	MJ	5.09E+2	7.19E+0	9.79E+1	6.14E+2	2.13E+0	-4.40E-1	1.24E-1	-2.56E+2	3.59E+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	9.67E-2	7.39E-4	1.01E-2	1.07E-1	2.24E-4	6.57E-3	1.40E-4	-2.31E-2	9.14E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	5.53E-5	1.67E-5	3.41E-5	1.06E-4	5.05E-6	1.51E-5	1.34E-7	-3.27E-5	9.37E-5
NHWD	kg	1.50E+0	3.98E-1	1.59E-1	2.05E+0	1.22E-1	5.96E-1	4.90E-1	-1.11E-1	3.15E+0
RWD	kg	1.01E-4	4.55E-5	2.58E-5	1.73E-4	1.34E-5	4.08E-5	7.41E-7	-1.28E-5	2.15E-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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