

Environmental Profile

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

Ecochain v3.5.71



Product: 3080894 - PVC-U Soil Pipe BK 110 L=3 S/S EN1453-1
 Unit: 1 piece
 Manufacturer: Wavin - IE - Balbriggan - Verified

LCA standard: EN15804+A2 (2019)
 Standard database: Worldwide - Ecoinvent v 3.6 Cut-Off
 Externally verified: Yes
 Issue date: 27-01-2023
 End of validity: 27-01-2028
 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 - IE - Balbriggan - 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

A1 Raw material supply A2 Transport A3 Manufacturing

Construction process stage

A4 Transport gate to site
 A5 Assembly / Construction installation process

Use stage

B1 Use B2 Maintenance B3 Repair B4 Replacement B5 Refurbishment
 B6 Operational energy use B7 Operational water use

End-of-Life stage

C1 De-construction demolition C2 Transport C3 Waste processing
 C4 Disposal

Benefits and loads beyond the system boundaries

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	8.51E+0	1.04E-1	6.08E-1	9.22E+0	1.28E-1	3.76E+0	3.69E-2	-4.96E+0	8.18E+0
GWP-f	kg CO2 eq	8.85E+0	1.04E-1	2.05E-1	9.16E+0	1.28E-1	3.34E+0	3.69E-2	-4.93E+0	7.74E+0
GWP-b	kg CO2 eq	-3.44E-1	3.63E-5	4.03E-1	5.85E-2	7.78E-5	4.12E-1	4.73E-5	-3.46E-2	4.36E-1
GWP-luluc	kg CO2 eq	6.99E-3	4.63E-5	6.99E-5	7.11E-3	4.54E-5	1.53E-3	9.84E-7	-3.26E-3	5.42E-3
ODP	kg CFC11 eq	5.02E-6	2.31E-8	2.32E-8	5.06E-6	2.95E-8	4.13E-7	1.47E-9	-2.48E-6	3.03E-6
AP	mol H+ eq	4.00E-2	1.41E-3	1.63E-3	4.30E-2	7.30E-4	7.09E-3	3.52E-5	-1.89E-2	3.19E-2
EP-fw	kg P eq	3.89E-4	7.27E-7	3.86E-6	3.93E-4	1.05E-6	5.09E-5	4.46E-8	-1.83E-4	2.62E-4
EP-m	kg N eq	6.72E-3	3.94E-4	2.35E-4	7.35E-3	2.61E-4	1.72E-3	2.17E-5	-3.29E-3	6.07E-3
EP-T	mol N eq	7.27E-2	4.37E-3	4.67E-3	8.18E-2	2.88E-3	1.90E-2	1.41E-4	-3.53E-2	6.85E-2
POCP	kg NMVOC eq	2.53E-2	1.18E-3	6.75E-4	2.71E-2	8.23E-4	5.70E-3	4.81E-5	-1.22E-2	2.15E-2
ADP-mm	kg Sb eq	2.55E-4	2.12E-6	6.62E-6	2.64E-4	3.32E-6	2.80E-5	3.50E-8	-1.01E-4	1.94E-4
ADP-f	MJ	2.30E+2	1.52E+0	2.63E+0	2.34E+2	1.97E+0	1.95E+1	1.07E-1	-1.20E+2	1.35E+2
WDP	m3 depriv.	1.49E+1	4.01E-3	9.73E-2	1.50E+1	6.04E-3	7.62E-1	5.96E-4	-7.13E+0	8.65E+0
PM	disease inc.	2.88E-7	7.57E-9	1.31E-8	3.09E-7	1.16E-8	8.87E-8	7.31E-10	-1.22E-7	2.88E-7
IR	kBq U-235 eq	4.91E-1	6.60E-3	2.62E-3	5.00E-1	8.60E-3	6.81E-2	4.90E-4	-2.31E-1	3.47E-1
ETP-fw	CTUe	1.49E+2	1.17E+0	5.49E+0	1.56E+2	1.60E+0	1.47E+2	1.62E+0	-7.06E+1	2.35E+2
HTP-c	CTUh	5.98E-9	4.94E-11	2.40E-10	6.27E-9	5.68E-11	2.12E-9	2.79E-12	-2.63E-9	5.82E-9
HTP-nc	CTUh	1.92E-7	1.29E-9	6.47E-9	2.00E-7	1.90E-9	5.15E-8	3.11E-10	-9.09E-8	1.63E-7
SQP	Pt	6.59E+1	1.02E+0	9.47E-1	6.79E+1	1.68E+0	1.21E+1	2.71E-1	-2.07E+1	6.12E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.65E+1	1.88E-2	6.72E+0	2.33E+1	2.82E-2	1.40E+0	3.88E-3	-6.80E+0	1.79E+1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.65E+1	1.88E-2	6.72E+0	2.33E+1	2.82E-2	1.40E+0	3.88E-3	-6.80E+0	1.79E+1
PENRE	MJ	2.46E+2	1.61E+0	2.88E+0	2.51E+2	2.09E+0	2.07E+1	1.13E-1	-1.29E+2	1.45E+2
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	2.46E+2	1.61E+0	2.88E+0	2.51E+2	2.09E+0	2.07E+1	1.13E-1	-1.29E+2	1.45E+2
PET	MJ	2.63E+2	1.63E+0	9.60E+0	2.74E+2	2.12E+0	2.21E+1	1.17E-1	-1.36E+2	1.62E+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	1.58E-1	1.48E-4	2.39E-3	1.61E-1	2.23E-4	2.09E-2	1.31E-4	-7.46E-2	1.07E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.82E-4	3.24E-6	2.13E-3	2.31E-3	5.03E-6	3.14E-5	1.29E-7	-9.93E-5	2.25E-3
NHWD	kg	8.63E-1	7.09E-2	2.60E-2	9.60E-1	1.22E-1	7.19E-1	4.88E-1	-3.82E-1	1.91E+0
RWD	kg	4.39E-4	1.04E-5	3.38E-6	4.53E-4	1.34E-5	7.30E-5	6.96E-7	-2.03E-4	3.36E-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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