

Environmental Profile

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

Ecochain v3.5.71



Product: 3066529 - PVC ESB Pipe RD 125 L=6
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					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	2.36E+1	3.59E-1	2.29E+0	2.62E+1	3.71E-1	9.81E+0	1.00E-1	-1.34E+1	2.30E+1
GWP-f	kg CO2 eq	2.39E+1	3.58E-1	7.72E-1	2.51E+1	3.70E-1	9.22E+0	1.00E-1	-1.33E+1	2.14E+1
GWP-b	kg CO2 eq	-4.03E-1	1.41E-4	1.51E+0	1.11E+0	2.25E-4	5.90E-1	1.29E-4	-9.41E-2	1.61E+0
GWP-luluc	kg CO2 eq	1.88E-2	1.54E-4	2.63E-4	1.92E-2	1.31E-4	4.28E-3	2.74E-6	-8.79E-3	1.48E-2
ODP	kg CFC11 eq	1.36E-5	8.00E-8	8.73E-8	1.37E-5	8.53E-8	1.14E-6	4.16E-9	-6.72E-6	8.25E-6
AP	mol H+ eq	1.08E-1	4.39E-3	6.13E-3	1.19E-1	2.11E-3	1.99E-2	9.91E-5	-5.12E-2	8.96E-2
EP-fw	kg P eq	1.06E-3	2.58E-6	1.45E-5	1.07E-3	3.05E-6	1.42E-4	1.23E-7	-4.97E-4	7.20E-4
EP-m	kg N eq	1.81E-2	1.26E-3	8.85E-4	2.03E-2	7.55E-4	4.84E-3	5.99E-5	-8.87E-3	1.70E-2
EP-T	mol N eq	1.97E-1	1.39E-2	1.76E-2	2.28E-1	8.32E-3	5.33E-2	3.97E-4	-9.48E-2	1.96E-1
POCP	kg NMVOC eq	6.80E-2	3.77E-3	2.54E-3	7.43E-2	2.38E-3	1.61E-2	1.34E-4	-3.28E-2	6.01E-2
ADP-mm	kg Sb eq	7.05E-4	7.64E-6	2.49E-5	7.37E-4	9.58E-6	7.87E-5	9.79E-8	-2.74E-4	5.52E-4
ADP-f	MJ	6.19E+2	5.28E+0	9.91E+0	6.34E+2	5.68E+0	5.51E+1	3.01E-1	-3.26E+2	3.70E+2
WDP	m3 depriv.	4.06E+1	1.43E-2	3.66E-1	4.09E+1	1.74E-2	2.11E+0	1.64E-3	-1.94E+1	2.37E+1
PM	disease inc.	7.49E-7	2.71E-8	4.94E-8	8.26E-7	3.34E-8	2.52E-7	2.06E-9	-3.27E-7	7.86E-7
IR	kBq U-235 eq	1.31E+0	2.30E-2	9.86E-3	1.35E+0	2.48E-2	1.92E-1	1.38E-3	-6.26E-1	9.38E-1
ETP-fw	CTUe	4.05E+2	4.09E+0	2.07E+1	4.30E+2	4.62E+0	4.02E+2	4.41E+0	-1.90E+2	6.50E+2
HTP-c	CTUh	1.62E-8	1.68E-10	9.05E-10	1.73E-8	1.64E-10	5.96E-9	7.69E-12	-7.12E-9	1.63E-8
HTP-nc	CTUh	5.23E-7	4.59E-9	2.43E-8	5.52E-7	5.50E-9	1.43E-7	8.48E-10	-2.46E-7	4.55E-7
SQP	Pt	1.32E+2	3.71E+0	3.56E+0	1.40E+2	4.86E+0	3.48E+1	7.61E-1	-4.61E+1	1.34E+2
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	3.77E+1	6.70E-2	2.53E+1	6.31E+1	8.15E-2	3.91E+0	1.07E-2	-1.64E+1	5.07E+1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	3.77E+1	6.70E-2	2.53E+1	6.31E+1	8.15E-2	3.91E+0	1.07E-2	-1.64E+1	5.07E+1
PENRE	MJ	6.64E+2	5.60E+0	1.08E+1	6.81E+2	6.03E+0	5.86E+1	3.19E-1	-3.51E+2	3.95E+2
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	6.64E+2	5.60E+0	1.08E+1	6.81E+2	6.03E+0	5.86E+1	3.19E-1	-3.51E+2	3.95E+2
PET	MJ	7.02E+2	5.67E+0	3.61E+1	7.44E+2	6.12E+0	6.26E+1	3.30E-1	-3.67E+2	4.46E+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	4.30E-1	5.27E-4	9.00E-3	4.40E-1	6.43E-4	5.77E-2	3.68E-4	-2.03E-1	2.95E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	4.96E-4	1.17E-5	8.00E-3	8.51E-3	1.45E-5	8.86E-5	3.61E-7	-2.69E-4	8.35E-3
NHWD	kg	2.38E+0	2.60E-1	9.80E-2	2.74E+0	3.52E-1	2.05E+0	1.41E+0	-1.03E+0	5.52E+0
RWD	kg	1.16E-3	3.61E-5	1.27E-5	1.21E-3	3.87E-5	2.07E-4	1.97E-6	-5.52E-4	9.04E-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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