

Environmental Profile

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

Ecochain v3.5.71



Product: 3066547 - PVC Public Lighting Duct Pipe RD 110
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	1.62E+1	3.24E-1	1.57E+0	1.80E+1	2.55E-1	6.74E+0	6.87E-2	-9.21E+0	1.59E+1
GWP-f	kg CO2 eq	1.64E+1	3.24E-1	5.29E-1	1.73E+1	2.55E-1	6.33E+0	6.87E-2	-9.14E+0	1.48E+1
GWP-b	kg CO2 eq	-2.80E-1	9.74E-5	1.04E+0	7.57E-1	1.55E-4	4.08E-1	8.87E-5	-6.45E-2	1.10E+0
GWP-luluc	kg CO2 eq	1.29E-2	1.51E-4	1.80E-4	1.32E-2	9.03E-5	2.94E-3	1.89E-6	-6.03E-3	1.02E-2
ODP	kg CFC11 eq	9.27E-6	7.14E-8	5.98E-8	9.41E-6	5.88E-8	7.80E-7	2.86E-9	-4.61E-6	5.63E-6
AP	mol H+ eq	7.43E-2	4.84E-3	4.19E-3	8.33E-2	1.45E-3	1.37E-2	6.82E-5	-3.51E-2	6.34E-2
EP-fw	kg P eq	7.24E-4	2.20E-6	9.94E-6	7.37E-4	2.10E-6	9.74E-5	8.49E-8	-3.41E-4	4.95E-4
EP-m	kg N eq	1.24E-2	1.33E-3	6.06E-4	1.44E-2	5.20E-4	3.33E-3	4.11E-5	-6.08E-3	1.22E-2
EP-T	mol N eq	1.35E-1	1.47E-2	1.20E-2	1.62E-1	5.73E-3	3.67E-2	2.73E-4	-6.50E-2	1.40E-1
POCP	kg NMVOC eq	4.67E-2	3.94E-3	1.74E-3	5.24E-2	1.64E-3	1.10E-2	9.24E-5	-2.25E-2	4.27E-2
ADP-mm	kg Sb eq	4.90E-4	6.31E-6	1.70E-5	5.14E-4	6.60E-6	5.41E-5	6.74E-8	-1.88E-4	3.87E-4
ADP-f	MJ	4.23E+2	4.69E+0	6.78E+0	4.34E+2	3.92E+0	3.79E+1	2.07E-1	-2.23E+2	2.53E+2
WDP	m3 depriv.	2.78E+1	1.21E-2	2.51E-1	2.81E+1	1.20E-2	1.45E+0	1.15E-3	-1.33E+1	1.62E+1
PM	disease inc.	5.11E-7	2.26E-8	3.38E-8	5.68E-7	2.30E-8	1.73E-7	1.42E-9	-2.24E-7	5.41E-7
IR	kBq U-235 eq	8.93E-1	2.04E-2	6.75E-3	9.20E-1	1.71E-2	1.32E-1	9.48E-4	-4.30E-1	6.41E-1
ETP-fw	CTUe	2.79E+2	3.56E+0	1.41E+1	2.96E+2	3.18E+0	2.75E+2	3.02E+0	-1.31E+2	4.47E+2
HTP-c	CTUh	1.12E-8	1.56E-10	6.19E-10	1.20E-8	1.13E-10	4.11E-9	5.30E-12	-4.88E-9	1.14E-8
HTP-nc	CTUh	3.59E-7	3.89E-9	1.67E-8	3.80E-7	3.79E-9	9.82E-8	5.81E-10	-1.69E-7	3.13E-7
SQP	Pt	9.11E+1	2.99E+0	2.44E+0	9.65E+1	3.35E+0	2.39E+1	5.23E-1	-3.17E+1	9.26E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	2.59E+1	5.63E-2	1.73E+1	4.33E+1	5.62E-2	2.69E+0	7.33E-3	-1.13E+1	3.48E+1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	2.59E+1	5.63E-2	1.73E+1	4.33E+1	5.62E-2	2.69E+0	7.33E-3	-1.13E+1	3.48E+1
PENRE	MJ	4.54E+2	4.98E+0	7.41E+0	4.66E+2	4.16E+0	4.03E+1	2.20E-1	-2.40E+2	2.71E+2
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	4.54E+2	4.98E+0	7.41E+0	4.66E+2	4.16E+0	4.03E+1	2.20E-1	-2.40E+2	2.71E+2
PET	MJ	4.80E+2	5.03E+0	2.47E+1	5.09E+2	4.22E+0	4.30E+1	2.27E-1	-2.51E+2	3.05E+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	2.96E-1	4.42E-4	6.16E-3	3.02E-1	4.43E-4	3.96E-2	2.53E-4	-1.39E-1	2.04E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	3.41E-4	9.64E-6	5.48E-3	5.83E-3	1.00E-5	6.09E-5	2.49E-7	-1.84E-4	5.72E-3
NHWD	kg	1.64E+0	2.06E-1	6.71E-2	1.91E+0	2.43E-1	1.41E+0	9.70E-1	-7.09E-1	3.83E+0
RWD	kg	7.83E-4	3.21E-5	8.70E-6	8.24E-4	2.66E-5	1.42E-4	1.35E-6	-3.79E-4	6.15E-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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