

Environmental Profile

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

Ecochain v3.5.71



Product: 3066541 - PVC Duct Pipe 110 S/S
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	1.12E+1	1.34E-1	1.11E+0	1.24E+1	1.77E-1	4.82E+0	4.80E-2	-6.45E+0	1.10E+1
GWP-f	kg CO2 eq	1.15E+1	1.34E-1	3.76E-1	1.20E+1	1.77E-1	4.41E+0	4.80E-2	-6.40E+0	1.02E+1
GWP-b	kg CO2 eq	-3.21E-1	6.74E-5	7.38E-1	4.17E-1	1.07E-4	4.10E-1	6.20E-5	-4.51E-2	7.82E-1
GWP-luluc	kg CO2 eq	9.05E-3	5.19E-5	1.28E-4	9.23E-3	6.25E-5	2.05E-3	1.30E-6	-4.23E-3	7.11E-3
ODP	kg CFC11 eq	6.52E-6	3.04E-8	4.25E-8	6.60E-6	4.07E-8	5.45E-7	1.99E-9	-3.22E-6	3.97E-6
AP	mol H+ eq	5.19E-2	1.22E-3	2.98E-3	5.61E-2	1.01E-3	9.52E-3	4.73E-5	-2.46E-2	4.21E-2
EP-fw	kg P eq	5.06E-4	1.03E-6	7.07E-6	5.14E-4	1.45E-6	6.79E-5	5.88E-8	-2.38E-4	3.45E-4
EP-m	kg N eq	8.72E-3	3.76E-4	4.31E-4	9.53E-3	3.60E-4	2.32E-3	2.87E-5	-4.27E-3	7.97E-3
EP-T	mol N eq	9.47E-2	4.16E-3	8.55E-3	1.07E-1	3.97E-3	2.56E-2	1.90E-4	-4.57E-2	9.14E-2
POCP	kg NMVOC eq	3.27E-2	1.15E-3	1.24E-3	3.51E-2	1.13E-3	7.69E-3	6.42E-5	-1.58E-2	2.82E-2
ADP-mm	kg Sb eq	3.35E-4	3.14E-6	1.21E-5	3.51E-4	4.57E-6	3.77E-5	4.68E-8	-1.31E-4	2.62E-4
ADP-f	MJ	2.98E+2	2.01E+0	4.82E+0	3.05E+2	2.71E+0	2.63E+1	1.44E-1	-1.56E+2	1.78E+2
WDP	m3 depriv.	1.94E+1	5.80E-3	1.78E-1	1.96E+1	8.32E-3	1.01E+0	7.69E-4	-9.28E+0	1.14E+1
PM	disease inc.	3.67E-7	1.11E-8	2.41E-8	4.02E-7	1.59E-8	1.20E-7	9.82E-10	-1.58E-7	3.82E-7
IR	kBq U-235 eq	6.34E-1	8.78E-3	4.80E-3	6.48E-1	1.19E-2	9.17E-2	6.59E-4	-3.00E-1	4.52E-1
ETP-fw	CTUe	1.94E+2	1.60E+0	1.01E+1	2.06E+2	2.20E+0	1.92E+2	2.11E+0	-9.16E+1	3.11E+2
HTP-c	CTUh	7.79E-9	6.08E-11	4.40E-10	8.29E-9	7.83E-11	2.85E-9	3.67E-12	-3.41E-9	7.80E-9
HTP-nc	CTUh	2.51E-7	1.85E-9	1.19E-8	2.64E-7	2.62E-9	6.85E-8	4.06E-10	-1.18E-7	2.18E-7
SQP	Pt	7.51E+1	1.57E+0	1.73E+0	7.84E+1	2.32E+0	1.66E+1	3.63E-1	-2.46E+1	7.31E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.98E+1	2.71E-2	1.23E+1	3.22E+1	3.89E-2	1.87E+0	5.12E-3	-8.37E+0	2.57E+1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.98E+1	2.71E-2	1.23E+1	3.22E+1	3.89E-2	1.87E+0	5.12E-3	-8.37E+0	2.57E+1
PENRE	MJ	3.19E+2	2.14E+0	5.27E+0	3.27E+2	2.88E+0	2.80E+1	1.52E-1	-1.68E+2	1.90E+2
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	3.19E+2	2.14E+0	5.27E+0	3.27E+2	2.88E+0	2.80E+1	1.52E-1	-1.68E+2	1.90E+2
PET	MJ	3.39E+2	2.16E+0	1.76E+1	3.59E+2	2.92E+0	2.99E+1	1.58E-1	-1.76E+2	2.15E+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	2.06E-1	2.14E-4	4.38E-3	2.10E-1	3.07E-4	2.77E-2	1.76E-4	-9.72E-2	1.41E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	2.38E-4	4.79E-6	3.90E-3	4.14E-3	6.93E-6	4.24E-5	1.72E-7	-1.29E-4	4.06E-3
NHWD	kg	1.14E+0	1.12E-1	4.77E-2	1.30E+0	1.68E-1	9.81E-1	6.72E-1	-4.96E-1	2.63E+0
RWD	kg	5.63E-4	1.37E-5	6.18E-6	5.83E-4	1.84E-5	9.89E-5	9.40E-7	-2.64E-4	4.37E-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



Ecochain Technologies BV
H.J.E. Wenckebachweg 123, 1096 AM Amsterdam, The Netherlands
<https://www.ecochain.com>
+31 20 3035 777