

Environmental Profile

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

Ecochain v3.5.71



Product: 3066543 - PVC Duct Pipe 160 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	2.41E+1	2.87E-1	2.39E+0	2.67E+1	3.79E-1	1.03E+1	1.03E-1	-1.38E+1	2.37E+1
GWP-f	kg CO2 eq	2.46E+1	2.87E-1	8.07E-1	2.57E+1	3.79E-1	9.47E+0	1.03E-1	-1.37E+1	2.20E+1
GWP-b	kg CO2 eq	-6.05E-1	1.44E-4	1.58E+0	9.78E-1	2.30E-4	7.97E-1	1.33E-4	-9.67E-2	1.68E+0
GWP-luluc	kg CO2 eq	1.94E-2	1.11E-4	2.75E-4	1.98E-2	1.34E-4	4.40E-3	2.80E-6	-9.06E-3	1.52E-2
ODP	kg CFC11 eq	1.40E-5	6.50E-8	9.12E-8	1.42E-5	8.73E-8	1.17E-6	4.26E-9	-6.90E-6	8.51E-6
AP	mol H+ eq	1.11E-1	2.60E-3	6.40E-3	1.20E-1	2.16E-3	2.04E-2	1.02E-4	-5.27E-2	9.03E-2
EP-fw	kg P eq	1.09E-3	2.20E-6	1.52E-5	1.10E-3	3.12E-6	1.46E-4	1.26E-7	-5.11E-4	7.41E-4
EP-m	kg N eq	1.87E-2	8.03E-4	9.25E-4	2.04E-2	7.73E-4	4.97E-3	6.15E-5	-9.14E-3	1.71E-2
EP-T	mol N eq	2.03E-1	8.88E-3	1.84E-2	2.30E-1	8.51E-3	5.48E-2	4.07E-4	-9.79E-2	1.96E-1
POCP	kg NMVOC eq	7.01E-2	2.45E-3	2.65E-3	7.52E-2	2.43E-3	1.65E-2	1.38E-4	-3.38E-2	6.05E-2
ADP-mm	kg Sb eq	7.19E-4	6.73E-6	2.60E-5	7.52E-4	9.81E-6	8.08E-5	1.00E-7	-2.81E-4	5.61E-4
ADP-f	MJ	6.39E+2	4.31E+0	1.04E+1	6.53E+2	5.82E+0	5.65E+1	3.08E-1	-3.35E+2	3.81E+2
WDP	m3 depriv.	4.17E+1	1.24E-2	3.83E-1	4.21E+1	1.79E-2	2.17E+0	1.65E-3	-1.99E+1	2.44E+1
PM	disease inc.	7.83E-7	2.37E-8	5.16E-8	8.58E-7	3.42E-8	2.58E-7	2.11E-9	-3.38E-7	8.15E-7
IR	kBq U-235 eq	1.36E+0	1.88E-2	1.03E-2	1.39E+0	2.54E-2	1.97E-1	1.41E-3	-6.44E-1	9.69E-1
ETP-fw	CTUe	4.17E+2	3.41E+0	2.16E+1	4.42E+2	4.72E+0	4.13E+2	4.54E+0	-1.96E+2	6.67E+2
HTP-c	CTUh	1.67E-8	1.30E-10	9.45E-10	1.78E-8	1.68E-10	6.10E-9	7.87E-12	-7.32E-9	1.67E-8
HTP-nc	CTUh	5.37E-7	3.95E-9	2.54E-8	5.67E-7	5.63E-9	1.47E-7	8.72E-10	-2.53E-7	4.67E-7
SQP	Pt	1.54E+2	3.36E+0	3.72E+0	1.61E+2	4.98E+0	3.56E+1	7.80E-1	-5.11E+1	1.51E+2
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	4.14E+1	5.81E-2	2.64E+1	6.79E+1	8.35E-2	4.02E+0	1.10E-2	-1.76E+1	5.44E+1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	4.14E+1	5.81E-2	2.64E+1	6.79E+1	8.35E-2	4.02E+0	1.10E-2	-1.76E+1	5.44E+1
PENRE	MJ	6.85E+2	4.57E+0	1.13E+1	7.01E+2	6.18E+0	6.02E+1	3.27E-1	-3.61E+2	4.07E+2
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	6.85E+2	4.57E+0	1.13E+1	7.01E+2	6.18E+0	6.02E+1	3.27E-1	-3.61E+2	4.07E+2
PET	MJ	7.27E+2	4.63E+0	3.78E+1	7.69E+2	6.26E+0	6.42E+1	3.38E-1	-3.78E+2	4.61E+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	4.41E-1	4.58E-4	9.41E-3	4.51E-1	6.58E-4	5.93E-2	3.78E-4	-2.09E-1	3.03E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	5.11E-4	1.03E-5	8.36E-3	8.88E-3	1.49E-5	9.09E-5	3.70E-7	-2.76E-4	8.71E-3
NHWD	kg	2.45E+0	2.40E-1	1.02E-1	2.79E+0	3.61E-1	2.10E+0	1.44E+0	-1.06E+0	5.64E+0
RWD	kg	1.21E-3	2.94E-5	1.33E-5	1.25E-3	3.96E-5	2.12E-4	2.02E-6	-5.67E-4	9.36E-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



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