

Environmental Profile

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

Ecochain v3.5.80



Product: 3074037 - PEXc/EVOH Pipe IV 15x2.5 L=50 CorBK
Unit: 1 piece
Manufacturer: Wavin - PL - MPC

LCA standard: EN15804+A2 (2019)
Standard database: Worldwide - Ecoinvent v 3.6 Cut-Off
Externally verified: Yes
Issue date: 30-06-2023
End of validity: 30-06-2028
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 - PL - MPC (2021). (☑ = 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]

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Results

Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	1.81E+1	7.35E-1	2.28E+2	2.47E+2	5.31E-2	1.52E+1	2.33E-1	-6.39E+0	2.56E+2
GWP-f	kg CO2 eq	2.32E+1	7.35E-1	2.30E+2	2.54E+2	5.31E-2	9.94E+0	2.33E-1	-7.25E+0	2.57E+2
GWP-b	kg CO2 eq	-5.03E+0	3.16E-4	-2.16E+0	-7.18E+0	3.22E-5	5.27E+0	1.77E-4	8.68E-1	-1.05E+0
GWP-luluc	kg CO2 eq	1.79E-2	2.78E-4	2.34E-1	2.53E-1	1.88E-5	5.79E-5	3.40E-6	-8.56E-3	2.44E-1
ODP	kg CFC11 eq	1.05E-6	1.61E-7	1.30E-5	1.42E-5	1.22E-8	2.68E-8	5.02E-9	-7.81E-7	1.35E-5
AP	mol H+ eq	9.66E-2	5.13E-3	2.31E+0	2.42E+0	3.02E-4	1.78E-3	1.20E-4	-1.28E-2	2.41E+0
EP-fw	kg P eq	5.62E-4	7.21E-6	1.29E-2	1.35E-2	4.37E-7	2.48E-6	1.56E-7	-1.13E-4	1.34E-2
EP-m	kg N eq	1.80E-2	1.70E-3	2.44E-1	2.63E-1	1.08E-4	7.56E-4	8.98E-5	-3.56E-3	2.61E-1
EP-T	mol N eq	1.99E-1	1.87E-2	2.91E+0	3.13E+0	1.19E-3	8.51E-3	4.87E-4	-4.06E-2	3.10E+0
POCP	kg NMVOC eq	8.14E-2	5.27E-3	9.85E-1	1.07E+0	3.41E-4	2.33E-3	1.90E-4	-1.29E-2	1.06E+0
ADP-mm	kg Sb eq	2.28E-4	1.80E-5	3.09E-2	3.11E-2	1.37E-6	2.83E-6	1.20E-7	-1.85E-5	3.11E-2
ADP-f	MJ	7.02E+2	1.10E+1	2.13E+3	2.84E+3	8.15E-1	1.69E+0	3.67E-1	-1.22E+2	2.72E+3
WDP	m3 depriv.	1.44E+1	3.85E-2	8.19E+1	9.63E+1	2.50E-3	2.82E-2	1.74E-3	-1.64E+0	9.47E+1
PM	disease inc.	9.40E-7	6.40E-8	1.43E-5	1.53E-5	4.79E-9	1.81E-8	2.52E-9	-1.84E-7	1.51E-5
IR	kBq U-235 eq	6.17E-1	4.61E-2	1.60E+0	2.26E+0	3.56E-3	6.87E-3	1.71E-3	-1.13E-1	2.16E+0
ETP-fw	CTUe	3.37E+2	9.71E+0	1.90E+4	1.93E+4	6.62E-1	4.95E+0	3.39E-1	-9.25E+1	1.92E+4
HTP-c	CTUh	8.86E-9	3.24E-10	9.68E-7	9.77E-7	2.35E-11	1.44E-9	8.98E-12	-2.67E-9	9.76E-7
HTP-nc	CTUh	1.81E-7	1.05E-8	2.46E-5	2.47E-5	7.89E-10	1.15E-8	2.09E-10	-3.75E-8	2.47E-5
SQP	Pt	4.97E+2	9.24E+0	3.51E+3	4.02E+3	6.97E-1	9.61E-1	9.41E-1	-5.01E+2	3.52E+3
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	8.19E+1	2.67E-3	3.77E+4	3.78E+4	1.17E-2	6.52E-2	1.46E-2	-7.98E+1	3.77E+4
PERM	MJ	0	1.33E-1	0	1.33E-1	0	0	0	0	1.33E-1
PERT	MJ	8.19E+1	1.35E-1	3.77E+4	3.78E+4	1.17E-2	6.52E-2	1.46E-2	-7.98E+1	3.77E+4
PENRE	MJ	7.52E+2	4.38E-1	2.27E+3	3.02E+3	8.65E-1	1.80E+0	3.89E-1	-1.34E+2	2.89E+3
PENRM	MJ	0	1.12E+1	0	1.12E+1	0	0	0	0	1.12E+1
PENRT	MJ	7.52E+2	1.17E+1	2.27E+3	3.03E+3	8.65E-1	1.80E+0	3.89E-1	-1.34E+2	2.90E+3
PET	MJ	8.34E+2	1.18E+1	4.00E+4	4.08E+4	8.77E-1	1.86E+0	4.04E-1	-2.14E+2	4.06E+4
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	2.83E-1	1.31E-3	2.29E+0	2.57E+0	9.22E-5	2.36E-3	4.53E-4	-4.38E-2	2.53E+0

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.57E-4	2.72E-5	4.17E-6	1.89E-4	2.08E-6	5.88E-6	4.41E-7	-1.61E-4	3.57E-5
NHWD	kg	1.55E+0	6.73E-1	1.71E+0	3.94E+0	5.05E-2	1.19E-1	1.62E+0	-2.97E-1	5.43E+0
RWD	kg	6.17E-4	7.24E-5	5.64E-6	6.95E-4	5.54E-6	9.35E-6	2.40E-6	-1.27E-4	5.85E-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