

Environmental Profile

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

Ecochain v3.5.80



Product: 3074099 - PEXc/EVOH Pipe IV 18x2.5 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	2.05E+1	9.19E-1	2.83E+2	3.04E+2	6.74E-2	2.01E+1	2.96E-1	-8.22E+0	3.16E+2
GWP-f	kg CO2 eq	2.76E+1	9.18E-1	2.85E+2	3.13E+2	6.73E-2	1.27E+1	2.96E-1	-9.29E+0	3.17E+2
GWP-b	kg CO2 eq	-7.13E+0	3.97E-4	-2.68E+0	-9.81E+0	4.09E-5	7.46E+0	2.24E-4	1.08E+0	-1.27E+0
GWP-luluc	kg CO2 eq	2.17E-2	3.47E-4	2.91E-1	3.13E-1	2.38E-5	7.52E-5	4.34E-6	-1.11E-2	3.02E-1
ODP	kg CFC11 eq	1.25E-6	2.02E-7	1.61E-5	1.76E-5	1.55E-8	3.47E-8	6.37E-9	-1.00E-6	1.66E-5
AP	mol H+ eq	1.15E-1	6.32E-3	2.87E+0	2.99E+0	3.84E-4	2.28E-3	1.52E-4	-1.68E-2	2.98E+0
EP-fw	kg P eq	6.69E-4	9.03E-6	1.60E-2	1.67E-2	5.54E-7	3.20E-6	1.99E-7	-1.47E-4	1.66E-2
EP-m	kg N eq	2.15E-2	2.10E-3	3.02E-1	3.26E-1	1.37E-4	9.71E-4	1.13E-4	-4.69E-3	3.22E-1
EP-T	mol N eq	2.38E-1	2.32E-2	3.61E+0	3.87E+0	1.51E-3	1.09E-2	6.18E-4	-5.35E-2	3.83E+0
POCP	kg NMVOC eq	9.77E-2	6.53E-3	1.22E+0	1.33E+0	4.32E-4	2.99E-3	2.41E-4	-1.71E-2	1.31E+0
ADP-mm	kg Sb eq	2.73E-4	2.26E-5	3.83E-2	3.86E-2	1.74E-6	3.66E-6	1.53E-7	-2.51E-5	3.86E-2
ADP-f	MJ	8.38E+2	1.38E+1	2.64E+3	3.49E+3	1.03E+0	2.20E+0	4.65E-1	-1.56E+2	3.34E+3
WDP	m3 depriv.	1.73E+1	4.82E-2	1.02E+2	1.19E+2	3.17E-3	3.57E-2	2.32E-3	-2.08E+0	1.17E+2
PM	disease inc.	1.13E-6	8.03E-8	1.77E-5	1.89E-5	6.08E-9	2.33E-8	3.20E-9	-2.45E-7	1.87E-5
IR	kBq U-235 eq	7.38E-1	5.77E-2	1.99E+0	2.78E+0	4.52E-3	8.98E-3	2.17E-3	-1.47E-1	2.65E+0
ETP-fw	CTUe	4.04E+2	1.22E+1	2.35E+4	2.39E+4	8.39E-1	6.29E+0	4.29E-1	-1.19E+2	2.38E+4
HTP-c	CTUh	1.11E-8	4.04E-10	1.20E-6	1.21E-6	2.99E-11	1.90E-9	1.15E-11	-3.66E-9	1.21E-6
HTP-nc	CTUh	2.17E-7	1.32E-8	3.05E-5	3.07E-5	1.00E-9	1.49E-8	2.66E-10	-4.96E-8	3.07E-5
SQP	Pt	6.89E+2	1.16E+1	4.36E+3	5.06E+3	8.84E-1	1.27E+0	1.19E+0	-6.88E+2	4.38E+3
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.12E+2	3.05E-3	4.68E+4	4.69E+4	1.48E-2	8.44E-2	1.84E-2	-1.09E+2	4.68E+4
PERM	MJ	0	1.66E-1	0	1.66E-1	0	0	0	0	1.66E-1
PERT	MJ	1.12E+2	1.69E-1	4.68E+4	4.69E+4	1.48E-2	8.44E-2	1.84E-2	-1.09E+2	4.68E+4
PENRE	MJ	8.99E+2	5.01E-1	2.81E+3	3.71E+3	1.10E+0	2.34E+0	4.94E-1	-1.72E+2	3.54E+3
PENRM	MJ	0	1.41E+1	0	1.41E+1	0	0	0	0	1.41E+1
PENRT	MJ	8.99E+2	1.46E+1	2.81E+3	3.73E+3	1.10E+0	2.34E+0	4.94E-1	-1.72E+2	3.56E+3
PET	MJ	1.01E+3	1.48E+1	4.96E+4	5.06E+4	1.11E+0	2.43E+0	5.12E-1	-2.81E+2	5.03E+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	3.37E-1	1.64E-3	2.84E+0	3.18E+0	1.17E-4	3.02E-3	5.75E-4	-5.58E-2	3.13E+0

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.94E-4	3.41E-5	5.17E-6	2.33E-4	2.64E-6	7.64E-6	5.60E-7	-2.09E-4	3.53E-5
NHWD	kg	1.86E+0	8.44E-1	2.13E+0	4.83E+0	6.41E-2	1.58E-1	2.05E+0	-4.06E-1	6.70E+0
RWD	kg	7.36E-4	9.06E-5	7.00E-6	8.33E-4	7.03E-6	1.22E-5	3.04E-6	-1.66E-4	6.89E-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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