

Environmental Profile

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

Ecochain v3.5.80



Product: 3061223 - PEXc/EVOH Pipe IV 22x3.0 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	3.43E+1	1.32E+0	1.21E+0	3.69E+1	1.73E-1	4.06E+1	7.62E-1	-2.04E+1	5.80E+1
GWP-f	kg CO2 eq	4.26E+1	1.32E+0	7.64E-1	4.47E+1	1.73E-1	3.19E+1	7.63E-1	-2.15E+1	5.60E+1
GWP-b	kg CO2 eq	-8.28E+0	5.77E-4	4.50E-1	-7.83E+0	1.05E-4	8.66E+0	5.75E-4	1.17E+0	2.00E+0
GWP-luluc	kg CO2 eq	2.99E-2	4.94E-4	3.37E-4	3.07E-2	6.12E-5	1.15E-4	1.11E-5	-1.27E-2	1.82E-2
ODP	kg CFC11 eq	2.10E-6	2.90E-7	4.47E-8	2.44E-6	3.98E-8	5.23E-8	1.63E-8	-2.28E-6	2.64E-7
AP	mol H+ eq	1.77E-1	8.78E-3	3.09E-3	1.89E-1	9.84E-4	4.55E-3	3.91E-4	-2.68E-2	1.68E-1
EP-fw	kg P eq	1.13E-3	1.30E-5	2.06E-5	1.16E-3	1.42E-6	5.34E-6	5.09E-7	-1.76E-4	9.93E-4
EP-m	kg N eq	3.38E-2	2.95E-3	6.11E-4	3.74E-2	3.52E-4	2.00E-3	2.83E-4	-7.89E-3	3.21E-2
EP-T	mol N eq	3.80E-1	3.25E-2	5.68E-3	4.18E-1	3.88E-3	2.26E-2	1.58E-3	-8.90E-2	3.57E-1
POCP	kg NMVOC eq	1.51E-1	9.19E-3	1.83E-3	1.62E-1	1.11E-3	6.11E-3	6.20E-4	-2.87E-2	1.41E-1
ADP-mm	kg Sb eq	5.21E-4	3.26E-5	3.18E-5	5.85E-4	4.47E-6	4.66E-6	3.92E-7	-3.14E-5	5.63E-4
ADP-f	MJ	1.27E+3	1.98E+1	5.64E+0	1.29E+3	2.65E+0	3.24E+0	1.19E+0	-3.60E+2	9.38E+2
WDP	m3 depriv.	2.54E+1	6.95E-2	1.53E-1	2.57E+1	8.14E-3	7.03E-2	5.74E-3	-2.67E+0	2.31E+1
PM	disease inc.	1.74E-6	1.16E-7	3.05E-8	1.89E-6	1.56E-8	4.18E-8	8.20E-9	-3.02E-7	1.65E-6
IR	kBq U-235 eq	1.20E+0	8.28E-2	8.24E-3	1.29E+0	1.16E-2	1.23E-2	5.56E-3	-2.14E-1	1.10E+0
ETP-fw	CTUe	5.66E+2	1.75E+1	2.45E+1	6.08E+2	2.15E+0	1.14E+1	1.07E+0	-1.46E+2	4.77E+2
HTP-c	CTUh	1.65E-8	5.79E-10	1.29E-9	1.84E-8	7.66E-11	4.31E-9	2.92E-11	-4.94E-9	1.78E-8
HTP-nc	CTUh	3.42E-7	1.90E-8	3.05E-8	3.91E-7	2.57E-9	3.34E-8	6.75E-10	-6.57E-8	3.62E-7
SQP	Pt	8.44E+2	1.67E+1	4.82E+0	8.65E+2	2.27E+0	1.73E+0	3.06E+0	-7.90E+2	8.20E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.37E+2	3.52E-3	3.59E+1	1.73E+2	3.80E-2	1.38E-1	4.72E-2	-1.24E+2	4.92E+1
PERM	MJ	0	2.40E-1	0	2.40E-1	0	0	0	0	2.40E-1
PERT	MJ	1.37E+2	2.44E-1	3.59E+1	1.74E+2	3.80E-2	1.38E-1	4.72E-2	-1.24E+2	4.94E+1
PENRE	MJ	1.36E+3	5.80E-1	6.07E+0	1.36E+3	2.82E+0	3.45E+0	1.27E+0	-3.98E+2	9.72E+2
PENRM	MJ	0	2.04E+1	0	2.04E+1	0	0	0	0	2.04E+1
PENRT	MJ	1.36E+3	2.10E+1	6.07E+0	1.38E+3	2.82E+0	3.45E+0	1.27E+0	-3.98E+2	9.93E+2
PET	MJ	1.49E+3	2.12E+1	4.20E+1	1.56E+3	2.85E+0	3.59E+0	1.31E+0	-5.23E+2	1.04E+3
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	4.97E-1	2.37E-3	4.22E-3	5.04E-1	3.00E-4	6.61E-3	1.47E-3	-7.16E-2	4.41E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	3.37E-4	4.92E-5	6.44E-6	3.92E-4	6.78E-6	1.32E-5	1.44E-6	-4.59E-4	-4.51E-5
NHWD	kg	4.02E+0	1.22E+0	1.06E-1	5.34E+0	1.64E-1	2.68E-1	5.26E+0	-5.33E-1	1.05E+1
RWD	kg	1.25E-3	1.30E-4	9.41E-6	1.39E-3	1.80E-5	1.61E-5	7.80E-6	-2.56E-4	1.18E-3
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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