

Environmental Profile

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

Ecochain v3.5.80



Product: 3061224 - PEXc/EVOH Pipe IV 15x2.5 L=100 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	3.38E+1	1.39E+0	1.11E+0	3.63E+1	1.68E-1	3.96E+1	7.40E-1	-1.98E+1	5.70E+1
GWP-f	kg CO2 eq	4.19E+1	1.39E+0	6.63E-1	4.40E+1	1.68E-1	3.10E+1	7.40E-1	-2.10E+1	5.49E+1
GWP-b	kg CO2 eq	-8.13E+0	5.96E-4	4.42E-1	-7.69E+0	1.02E-4	8.66E+0	5.59E-4	1.17E+0	2.14E+0
GWP-luluc	kg CO2 eq	3.11E-2	5.28E-4	2.44E-4	3.19E-2	5.94E-5	1.16E-4	1.07E-5	-1.26E-2	1.94E-2
ODP	kg CFC11 eq	2.01E-6	3.06E-7	3.90E-8	2.36E-6	3.87E-8	5.24E-8	1.59E-8	-2.23E-6	2.39E-7
AP	mol H+ eq	1.71E-1	9.81E-3	2.18E-3	1.83E-1	9.56E-4	4.47E-3	3.79E-4	-2.65E-2	1.63E-1
EP-fw	kg P eq	1.24E-3	1.36E-5	1.54E-5	1.27E-3	1.38E-6	5.33E-6	4.93E-7	-1.75E-4	1.10E-3
EP-m	kg N eq	3.27E-2	3.24E-3	5.09E-4	3.65E-2	3.42E-4	1.96E-3	2.78E-4	-7.76E-3	3.13E-2
EP-T	mol N eq	3.69E-1	3.57E-2	4.50E-3	4.09E-1	3.77E-3	2.21E-2	1.54E-3	-8.75E-2	3.49E-1
POCP	kg NMVOC eq	1.46E-1	1.00E-2	1.43E-3	1.58E-1	1.08E-3	5.99E-3	6.02E-4	-2.83E-2	1.37E-1
ADP-mm	kg Sb eq	5.05E-4	3.41E-5	1.98E-5	5.59E-4	4.34E-6	4.66E-6	3.80E-7	-3.13E-5	5.37E-4
ADP-f	MJ	1.24E+3	2.08E+1	4.74E+0	1.26E+3	2.58E+0	3.21E+0	1.16E+0	-3.51E+2	9.19E+2
WDP	m3 depriv.	2.50E+1	7.27E-2	1.20E-1	2.52E+1	7.90E-3	7.06E-2	5.43E-3	-2.65E+0	2.26E+1
PM	disease inc.	1.66E-6	1.21E-7	2.46E-8	1.81E-6	1.51E-8	4.11E-8	7.96E-9	-3.01E-7	1.57E-6
IR	kBq U-235 eq	1.19E+0	8.74E-2	7.48E-3	1.28E+0	1.13E-2	1.22E-2	5.40E-3	-2.11E-1	1.10E+0
ETP-fw	CTUe	5.45E+2	1.84E+1	1.71E+1	5.80E+2	2.09E+0	1.15E+1	1.05E+0	-1.45E+2	4.50E+2
HTP-c	CTUh	1.59E-8	6.14E-10	9.11E-10	1.75E-8	7.44E-11	4.12E-9	2.83E-11	-4.90E-9	1.68E-8
HTP-nc	CTUh	3.34E-7	1.99E-8	2.09E-8	3.75E-7	2.49E-9	3.25E-8	6.57E-10	-6.52E-8	3.45E-7
SQP	Pt	8.37E+2	1.75E+1	3.44E+0	8.57E+2	2.20E+0	1.72E+0	2.97E+0	-7.90E+2	7.43E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.37E+2	5.34E-3	2.14E+1	1.59E+2	3.70E-2	1.38E-1	4.60E-2	-1.24E+2	3.47E+1
PERM	MJ	0	2.51E-1	0	2.51E-1	0	0	0	0	2.51E-1
PERT	MJ	1.37E+2	2.56E-1	2.14E+1	1.59E+2	3.70E-2	1.38E-1	4.60E-2	-1.24E+2	3.49E+1
PENRE	MJ	1.33E+3	8.77E-1	5.11E+0	1.33E+3	2.73E+0	3.43E+0	1.23E+0	-3.88E+2	9.53E+2
PENRM	MJ	0	2.13E+1	0	2.13E+1	0	0	0	0	2.13E+1
PENRT	MJ	1.33E+3	2.21E+1	5.11E+0	1.35E+3	2.73E+0	3.43E+0	1.23E+0	-3.88E+2	9.74E+2
PET	MJ	1.46E+3	2.24E+1	2.65E+1	1.51E+3	2.77E+0	3.57E+0	1.28E+0	-5.12E+2	1.01E+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	4.86E-1	2.48E-3	3.29E-3	4.92E-1	2.91E-4	6.49E-3	1.43E-3	-7.11E-2	4.29E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	3.28E-4	5.15E-5	6.30E-6	3.86E-4	6.59E-6	1.30E-5	1.39E-6	-4.48E-4	-4.11E-5
NHWD	kg	3.88E+0	1.27E+0	1.03E-1	5.25E+0	1.60E-1	2.63E-1	5.11E+0	-5.30E-1	1.03E+1
RWD	kg	1.25E-3	1.37E-4	9.21E-6	1.39E-3	1.75E-5	1.60E-5	7.58E-6	-2.53E-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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