

Environmental Profile

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

Ecochain v3.5.80



Product: 3061227 - PEXc/EVOH Pipe IV 15x2.5 L=300 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	1.05E+2	4.29E+0	4.95E+0	1.14E+2	5.12E-1	1.22E+2	2.26E+0	-6.03E+1	1.78E+2
GWP-f	kg CO2 eq	1.29E+2	4.29E+0	3.59E+0	1.37E+2	5.11E-1	9.52E+1	2.26E+0	-6.49E+1	1.70E+2
GWP-b	kg CO2 eq	-2.44E+1	1.84E-3	1.35E+0	-2.30E+1	3.11E-4	2.65E+1	1.70E-3	4.65E+0	8.09E+0
GWP-luluc	kg CO2 eq	1.01E-1	1.63E-3	2.32E-3	1.05E-1	1.81E-4	3.86E-4	3.27E-5	-4.60E-2	5.96E-2
ODP	kg CFC11 eq	6.28E-6	9.42E-7	2.07E-7	7.43E-6	1.18E-7	1.76E-7	4.84E-8	-6.90E-6	8.71E-7
AP	mol H+ eq	5.30E-1	3.03E-2	2.22E-2	5.82E-1	2.91E-3	1.42E-2	1.16E-3	-8.58E-2	5.15E-1
EP-fw	kg P eq	3.84E-3	4.20E-5	1.34E-4	4.02E-3	4.21E-6	1.75E-5	1.50E-6	-6.28E-4	3.41E-3
EP-m	kg N eq	1.02E-1	9.98E-3	3.20E-3	1.15E-1	1.04E-3	6.20E-3	8.48E-4	-2.49E-2	9.85E-2
EP-T	mol N eq	1.15E+0	1.10E-1	3.34E-2	1.29E+0	1.15E-2	7.00E-2	4.69E-3	-2.81E-1	1.10E+0
POCP	kg NMVOC eq	4.52E-1	3.10E-2	1.10E-2	4.94E-1	3.28E-3	1.90E-2	1.83E-3	-8.95E-2	4.28E-1
ADP-mm	kg Sb eq	1.56E-3	1.05E-4	2.68E-4	1.93E-3	1.32E-5	1.66E-5	1.16E-6	-1.02E-4	1.86E-3
ADP-f	MJ	3.81E+3	6.42E+1	2.89E+1	3.90E+3	7.85E+0	1.09E+1	3.53E+0	-1.09E+3	2.83E+3
WDP	m3 depriv.	7.71E+1	2.24E-1	9.18E-1	7.82E+1	2.41E-2	2.26E-1	1.65E-2	-9.66E+0	6.89E+1
PM	disease inc.	5.16E-6	3.73E-7	1.72E-7	5.71E-6	4.62E-8	1.34E-7	2.43E-8	-1.01E-6	4.90E-6
IR	kBq U-235 eq	3.68E+0	2.69E-1	3.39E-2	3.98E+0	3.43E-2	4.20E-2	1.65E-2	-7.11E-1	3.36E+0
ETP-fw	CTUe	1.80E+3	5.66E+1	1.80E+2	2.04E+3	6.38E+0	3.72E+1	3.21E+0	-5.23E+2	1.56E+3
HTP-c	CTUh	4.91E-8	1.89E-9	9.29E-9	6.03E-8	2.27E-10	1.28E-8	8.62E-11	-1.55E-8	5.80E-8
HTP-nc	CTUh	1.04E-6	6.14E-8	2.29E-7	1.33E-6	7.60E-9	1.01E-7	2.00E-9	-2.20E-7	1.22E-6
SQP	Pt	2.56E+3	5.38E+1	3.41E+1	2.65E+3	6.72E+0	5.86E+0	9.06E+0	-2.58E+3	9.61E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	4.24E+2	1.66E-2	3.18E+2	7.42E+2	1.13E-1	4.55E-1	1.40E-1	-4.11E+2	3.32E+2
PERM	MJ	0	7.72E-1	0	7.72E-1	0	0	0	0	7.72E-1
PERT	MJ	4.24E+2	7.88E-1	3.18E+2	7.43E+2	1.13E-1	4.55E-1	1.40E-1	-4.11E+2	3.33E+2
PENRE	MJ	4.08E+3	2.73E+0	3.10E+1	4.11E+3	8.34E+0	1.16E+1	3.75E+0	-1.20E+3	2.94E+3
PENRM	MJ	0	6.54E+1	0	6.54E+1	0	0	0	0	6.54E+1
PENRT	MJ	4.08E+3	6.82E+1	3.10E+1	4.18E+3	8.34E+0	1.16E+1	3.75E+0	-1.20E+3	3.00E+3
PET	MJ	4.50E+3	6.90E+1	3.49E+2	4.92E+3	8.45E+0	1.21E+1	3.89E+0	-1.61E+3	3.34E+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	1.51E+0	7.63E-3	2.55E-2	1.54E+0	8.89E-4	2.03E-2	4.37E-3	-2.58E-1	1.31E+0

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.02E-3	1.58E-4	1.95E-5	1.20E-3	2.01E-5	4.25E-5	4.24E-6	-1.38E-3	-1.15E-4
NHWD	kg	1.21E+1	3.92E+0	3.30E-1	1.63E+1	4.87E-1	8.74E-1	1.56E+1	-1.69E+0	3.16E+1
RWD	kg	3.86E-3	4.23E-4	2.86E-5	4.31E-3	5.34E-5	5.57E-5	2.31E-5	-8.35E-4	3.61E-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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