

Environmental Profile

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

Ecochain v3.5.80



Product: 3061220 - PEXc/EVOH Pipe IV 12x2.0 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	1.32E+1	5.14E-1	2.58E+0	1.63E+1	6.62E-2	1.77E+1	2.91E-1	-7.91E+0	2.64E+1
GWP-f	kg CO2 eq	1.81E+1	5.13E-1	2.40E+0	2.10E+1	6.61E-2	1.24E+1	2.92E-1	-8.79E+0	2.50E+1
GWP-b	kg CO2 eq	-4.90E+0	2.19E-4	1.78E-1	-4.72E+0	4.02E-5	5.27E+0	2.20E-4	8.84E-1	1.44E+0
GWP-luluc	kg CO2 eq	1.67E-2	1.95E-4	2.25E-3	1.91E-2	2.34E-5	6.22E-5	4.24E-6	-8.73E-3	1.05E-2
ODP	kg CFC11 eq	9.63E-7	1.13E-7	1.36E-7	1.21E-6	1.52E-8	2.87E-8	6.25E-9	-9.41E-7	3.21E-7
AP	mol H+ eq	7.62E-2	3.64E-3	2.21E-2	1.02E-1	3.77E-4	2.06E-3	1.49E-4	-1.39E-2	9.06E-2
EP-fw	kg P eq	5.89E-4	5.03E-6	1.25E-4	7.19E-4	5.44E-7	2.72E-6	1.95E-7	-1.16E-4	6.06E-4
EP-m	kg N eq	1.50E-2	1.20E-3	2.45E-3	1.87E-2	1.35E-4	8.83E-4	1.09E-4	-3.94E-3	1.59E-2
EP-T	mol N eq	1.69E-1	1.32E-2	2.86E-2	2.11E-1	1.49E-3	9.95E-3	6.06E-4	-4.48E-2	1.78E-1
POCP	kg NMVOC eq	6.42E-2	3.72E-3	9.64E-3	7.75E-2	4.25E-4	2.72E-3	2.37E-4	-1.42E-2	6.67E-2
ADP-mm	kg Sb eq	2.24E-4	1.26E-5	2.91E-4	5.27E-4	1.71E-6	2.95E-6	1.50E-7	-1.90E-5	5.13E-4
ADP-f	MJ	5.12E+2	7.68E+0	2.16E+1	5.42E+2	1.02E+0	1.82E+0	4.57E-1	-1.47E+2	3.98E+2
WDP	m3 depriv.	1.01E+1	2.68E-2	8.02E-1	1.09E+1	3.11E-3	3.20E-2	2.19E-3	-1.72E+0	9.23E+0
PM	disease inc.	7.71E-7	4.46E-8	1.41E-7	9.57E-7	5.97E-9	2.04E-8	3.14E-9	-1.89E-7	7.98E-7
IR	kBq U-235 eq	5.36E-1	3.22E-2	1.80E-2	5.86E-1	4.44E-3	7.26E-3	2.13E-3	-1.21E-1	4.79E-1
ETP-fw	CTUe	2.94E+2	6.77E+0	1.81E+2	4.82E+2	8.24E-1	5.46E+0	4.15E-1	-9.57E+1	3.93E+2
HTP-c	CTUh	7.61E-9	2.26E-10	9.25E-9	1.71E-8	2.93E-11	1.76E-9	1.12E-11	-2.78E-9	1.61E-8
HTP-nc	CTUh	1.53E-7	7.35E-9	2.34E-7	3.94E-7	9.83E-10	1.39E-8	2.59E-10	-3.92E-8	3.70E-7
SQP	Pt	4.94E+2	6.44E+0	3.37E+1	5.34E+2	8.68E-1	1.02E+0	1.17E+0	-5.05E+2	3.21E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	7.93E+1	2.03E-3	3.54E+2	4.33E+2	1.46E-2	7.13E-2	1.81E-2	-8.04E+1	3.53E+2
PERM	MJ	0	9.23E-2	0	9.23E-2	0	0	0	0	9.23E-2
PERT	MJ	7.93E+1	9.43E-2	3.54E+2	4.33E+2	1.46E-2	7.13E-2	1.81E-2	-8.04E+1	3.53E+2
PENRE	MJ	5.49E+2	3.34E-1	2.30E+1	5.72E+2	1.08E+0	1.93E+0	4.85E-1	-1.62E+2	4.14E+2
PENRM	MJ	0	7.82E+0	0	7.82E+0	0	0	0	0	7.82E+0
PENRT	MJ	5.49E+2	8.16E+0	2.30E+1	5.80E+2	1.08E+0	1.93E+0	4.85E-1	-1.62E+2	4.21E+2
PET	MJ	6.28E+2	8.25E+0	3.77E+2	1.01E+3	1.09E+0	2.01E+0	5.03E-1	-2.43E+2	7.75E+2
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	2.09E-1	9.13E-4	2.24E-2	2.32E-1	1.15E-4	2.80E-3	5.64E-4	-4.59E-2	1.90E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.58E-4	1.90E-5	2.86E-6	1.80E-4	2.60E-6	6.58E-6	5.49E-7	-1.92E-4	-2.41E-6
NHWD	kg	1.87E+0	4.68E-1	6.17E-2	2.40E+0	6.29E-2	1.35E-1	2.01E+0	-3.08E-1	4.30E+0
RWD	kg	5.73E-4	5.06E-5	4.18E-6	6.27E-4	6.90E-6	9.82E-6	2.99E-6	-1.38E-4	5.09E-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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