

Environmental Profile

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

Ecochain v3.5.80



Product: 3061233 - PEXc/EVOH Pipe Ins9GY 15x2.5 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]; **PENRE** = 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	1.33E+1	8.74E-1	9.97E-1	1.52E+1	1.03E-1	3.68E+1	4.54E-1	-1.34E+1	3.92E+1
GWP-f	kg CO2 eq	2.96E+1	8.73E-1	5.85E-1	3.11E+1	1.03E-1	1.97E+1	4.54E-1	-1.53E+1	3.60E+1
GWP-b	kg CO2 eq	-1.64E+1	3.80E-4	4.12E-1	-1.59E+1	6.24E-5	1.71E+1	3.42E-4	1.95E+0	3.16E+0
GWP-luluc	kg CO2 eq	3.27E-2	3.29E-4	1.94E-4	3.32E-2	3.64E-5	1.36E-4	6.56E-6	-2.17E-2	1.17E-2
ODP	kg CFC11 eq	1.67E-6	1.92E-7	3.44E-8	1.90E-6	2.37E-8	6.26E-8	9.72E-9	-1.67E-6	3.26E-7
AP	mol H+ eq	1.28E-1	5.93E-3	1.69E-3	1.36E-1	5.86E-4	3.88E-3	2.32E-4	-3.22E-2	1.08E-1
EP-fw	kg P eq	9.23E-4	8.61E-6	1.25E-5	9.44E-4	8.46E-7	5.62E-6	3.02E-7	-2.86E-4	6.65E-4
EP-m	kg N eq	2.65E-2	1.98E-3	4.39E-4	2.89E-2	2.10E-4	1.63E-3	1.69E-4	-8.89E-3	2.21E-2
EP-T	mol N eq	2.95E-1	2.19E-2	3.77E-3	3.21E-1	2.31E-3	1.84E-2	9.42E-4	-1.02E-1	2.41E-1
POCP	kg NMVOC eq	1.12E-1	6.16E-3	1.19E-3	1.20E-1	6.60E-4	5.05E-3	3.69E-4	-3.30E-2	9.29E-2
ADP-mm	kg Sb eq	4.02E-4	2.15E-5	1.40E-5	4.37E-4	2.66E-6	6.87E-6	2.33E-7	-5.33E-5	3.94E-4
ADP-f	MJ	8.30E+2	1.31E+1	4.10E+0	8.48E+2	1.58E+0	4.09E+0	7.10E-1	-2.58E+2	5.96E+2
WDP	m3 depriv.	1.75E+1	4.59E-2	9.98E-2	1.76E+1	4.84E-3	5.85E-2	3.31E-3	-3.82E+0	1.39E+1
PM	disease inc.	1.41E-6	7.65E-8	2.09E-8	1.51E-6	9.28E-9	4.09E-8	4.88E-9	-5.04E-7	1.06E-6
IR	kBq U-235 eq	9.29E-1	5.49E-2	6.73E-3	9.91E-1	6.90E-3	1.70E-2	3.31E-3	-2.80E-1	7.38E-1
ETP-fw	CTUe	5.42E+2	1.16E+1	1.32E+1	5.67E+2	1.28E+0	1.01E+1	6.41E-1	-2.26E+2	3.53E+2
HTP-c	CTUh	1.59E-8	3.84E-10	7.09E-10	1.70E-8	4.56E-11	2.93E-9	1.73E-11	-7.80E-9	1.22E-8
HTP-nc	CTUh	2.72E-7	1.26E-8	1.59E-8	3.01E-7	1.53E-9	2.36E-8	4.02E-10	-9.87E-8	2.28E-7
SQP	Pt	1.52E+3	1.11E+1	2.69E+0	1.53E+3	1.35E+0	2.46E+0	1.82E+0	-1.50E+3	4.17E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	2.33E+2	2.67E-3	1.45E+1	2.48E+2	2.26E-2	1.50E-1	2.81E-2	-2.35E+2	1.29E+1
PERM	MJ	0	1.59E-1	0	1.59E-1	0	0	0	0	1.59E-1
PERT	MJ	2.33E+2	1.61E-1	1.45E+1	2.48E+2	2.26E-2	1.50E-1	2.81E-2	-2.35E+2	1.30E+1
PENRE	MJ	8.90E+2	4.38E-1	4.43E+0	8.95E+2	1.68E+0	4.35E+0	7.53E-1	-2.83E+2	6.18E+2
PENRM	MJ	0	1.35E+1	0	1.35E+1	0	0	0	0	1.35E+1
PENRT	MJ	8.90E+2	1.39E+1	4.43E+0	9.09E+2	1.68E+0	4.35E+0	7.53E-1	-2.83E+2	6.32E+2
PET	MJ	1.12E+3	1.41E+1	1.89E+1	1.16E+3	1.70E+0	4.50E+0	7.81E-1	-5.19E+2	6.45E+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	3.51E-1	1.56E-3	2.74E-3	3.55E-1	1.79E-4	4.93E-3	8.77E-4	-1.03E-1	2.58E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	3.22E-4	3.25E-5	5.87E-6	3.61E-4	4.04E-6	1.34E-5	8.53E-7	-3.58E-4	2.11E-5
NHWD	kg	3.56E+0	8.05E-1	9.54E-2	4.46E+0	9.78E-2	2.87E-1	3.13E+0	-8.63E-1	7.11E+0
RWD	kg	9.78E-4	8.61E-5	8.58E-6	1.07E-3	1.07E-5	2.35E-5	4.64E-6	-3.16E-4	7.96E-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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