

Environmental Profile

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

Ecochain v3.5.80



Product: 3061230 - PEXc/EVOH Pipe Ins13GY 28x4.0 L=25 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	1.17E+1	1.34E+0	1.87E+0	1.49E+1	1.24E-1	5.01E+1	5.46E-1	-1.58E+1	4.98E+1
GWP-f	kg CO2 eq	3.61E+1	1.34E+0	1.30E+0	3.87E+1	1.24E-1	2.38E+1	5.46E-1	-2.00E+1	4.32E+1
GWP-b	kg CO2 eq	-2.44E+1	5.95E-4	5.76E-1	-2.38E+1	7.51E-5	2.63E+1	4.12E-4	4.20E+0	6.63E+0
GWP-luluc	kg CO2 eq	4.89E-2	5.02E-4	7.55E-4	5.01E-2	4.38E-5	2.23E-4	7.95E-6	-4.13E-2	9.11E-3
ODP	kg CFC11 eq	2.23E-6	2.96E-7	7.52E-8	2.60E-6	2.85E-8	1.06E-7	1.17E-8	-2.21E-6	5.45E-7
AP	mol H+ eq	1.59E-1	8.74E-3	7.15E-3	1.75E-1	7.05E-4	5.73E-3	2.80E-4	-5.16E-2	1.30E-1
EP-fw	kg P eq	1.08E-3	1.33E-5	4.42E-5	1.13E-3	1.02E-6	9.07E-6	3.65E-7	-5.34E-4	6.10E-4
EP-m	kg N eq	3.50E-2	2.96E-3	1.12E-3	3.91E-2	2.52E-4	2.37E-3	2.03E-4	-1.38E-2	2.81E-2
EP-T	mol N eq	3.84E-1	3.27E-2	1.13E-2	4.28E-1	2.78E-3	2.65E-2	1.13E-3	-1.59E-1	2.98E-1
POCP	kg NMVOC eq	1.44E-1	9.24E-3	3.71E-3	1.56E-1	7.94E-4	7.37E-3	4.44E-4	-5.02E-2	1.15E-1
ADP-mm	kg Sb eq	5.23E-4	3.34E-5	8.32E-5	6.39E-4	3.20E-6	1.26E-5	2.81E-7	-8.73E-5	5.68E-4
ADP-f	MJ	1.01E+3	2.02E+1	1.02E+1	1.04E+3	1.90E+0	6.97E+0	8.55E-1	-3.36E+2	7.15E+2
WDP	m3 depriv.	2.15E+1	7.12E-2	3.09E-1	2.19E+1	5.83E-3	8.51E-2	4.16E-3	-7.41E+0	1.45E+1
PM	disease inc.	1.87E-6	1.19E-7	5.88E-8	2.05E-6	1.12E-8	6.49E-8	5.87E-9	-8.66E-7	1.27E-6
IR	kBq U-235 eq	1.16E+0	8.46E-2	1.28E-2	1.25E+0	8.30E-3	2.97E-2	3.98E-3	-4.81E-1	8.14E-1
ETP-fw	CTUe	8.60E+2	1.79E+1	5.76E+1	9.35E+2	1.54E+0	1.57E+1	7.71E-1	-4.31E+2	5.23E+2
HTP-c	CTUh	2.17E-8	5.90E-10	2.99E-9	2.53E-8	5.49E-11	3.94E-9	2.10E-11	-1.22E-8	1.71E-8
HTP-nc	CTUh	3.53E-7	1.95E-8	7.30E-8	4.45E-7	1.84E-9	3.20E-8	4.84E-10	-1.70E-7	3.10E-7
SQP	Pt	2.29E+3	1.72E+1	1.10E+1	2.32E+3	1.62E+0	4.18E+0	2.19E+0	-2.47E+3	-1.44E+2
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	3.50E+2	2.92E-3	9.79E+1	4.48E+2	2.72E-2	2.42E-1	3.38E-2	-3.94E+2	5.49E+1
PERM	MJ	0	2.47E-1	0	2.47E-1	0	0	0	0	2.47E-1
PERT	MJ	3.50E+2	2.50E-1	9.79E+1	4.49E+2	2.72E-2	2.42E-1	3.38E-2	-3.94E+2	5.51E+1
PENRE	MJ	1.08E+3	4.80E-1	1.09E+1	1.10E+3	2.02E+0	7.41E+0	9.07E-1	-3.69E+2	7.37E+2
PENRM	MJ	0	2.10E+1	0	2.10E+1	0	0	0	0	2.10E+1
PENRT	MJ	1.08E+3	2.14E+1	1.09E+1	1.12E+3	2.02E+0	7.41E+0	9.07E-1	-3.69E+2	7.58E+2
PET	MJ	1.43E+3	2.17E+1	1.09E+2	1.56E+3	2.04E+0	7.65E+0	9.41E-1	-7.62E+2	8.13E+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	4.23E-1	2.43E-3	8.57E-3	4.34E-1	2.15E-4	6.74E-3	1.06E-3	-1.98E-1	2.43E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	4.52E-4	5.04E-5	8.28E-6	5.11E-4	4.86E-6	2.16E-5	1.03E-6	-4.78E-4	6.03E-5
NHWD	kg	4.85E+0	1.25E+0	1.38E-1	6.24E+0	1.18E-1	4.36E-1	3.76E+0	-1.37E+0	9.18E+0
RWD	kg	1.22E-3	1.33E-4	1.21E-5	1.37E-3	1.29E-5	4.15E-5	5.59E-6	-5.24E-4	9.04E-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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