

Environmental Profile

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

Ecochain v3.5.80



Product: 4059519 - TigrisGas PEXc/Al/PE P.25x2.5 L=25 CorYL
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	3.79E+1	7.17E-1	8.33E-1	3.94E+1	9.26E-2	1.76E+1	3.41E-1	-2.92E-1	5.71E+1
GWP-f	kg CO2 eq	4.11E+1	7.16E-1	5.97E-1	4.24E+1	9.26E-2	1.39E+1	3.40E-1	-1.29E+0	5.55E+1
GWP-b	kg CO2 eq	-3.29E+0	3.25E-4	2.35E-1	-3.05E+0	5.62E-5	3.62E+0	1.46E-3	9.70E-1	1.54E+0
GWP-luluc	kg CO2 eq	9.48E-2	2.65E-4	3.77E-4	9.55E-2	3.28E-5	6.67E-5	7.75E-6	2.36E-2	1.19E-1
ODP	kg CFC11 eq	1.75E-6	1.58E-7	3.45E-8	1.94E-6	2.13E-8	3.18E-8	9.23E-9	-7.23E-7	1.28E-6
AP	mol H+ eq	2.25E-1	4.33E-3	3.60E-3	2.33E-1	5.27E-4	2.28E-3	2.29E-4	4.10E-2	2.77E-1
EP-fw	kg P eq	1.30E-3	7.18E-6	2.18E-5	1.33E-3	7.62E-7	3.05E-6	3.58E-7	1.55E-4	1.49E-3
EP-m	kg N eq	3.74E-2	1.50E-3	5.29E-4	3.94E-2	1.89E-4	9.75E-4	1.45E-4	4.27E-3	4.50E-2
EP-T	mol N eq	4.18E-1	1.66E-2	5.47E-3	4.40E-1	2.08E-3	1.10E-2	9.26E-4	4.65E-2	5.01E-1
POCP	kg NMVOC eq	1.39E-1	4.72E-3	1.80E-3	1.46E-1	5.94E-4	3.01E-3	3.37E-4	1.30E-2	1.63E-1
ADP-mm	kg Sb eq	3.65E-4	1.80E-5	4.30E-5	4.26E-4	2.39E-6	3.24E-6	2.28E-7	-1.90E-3	-1.47E-3
ADP-f	MJ	7.62E+2	1.08E+1	4.78E+0	7.77E+2	1.42E+0	2.03E+0	6.94E-1	-8.25E+1	6.99E+2
WDP	m3 depriv.	1.49E+1	3.84E-2	1.50E-1	1.51E+1	4.36E-3	2.11E-2	3.40E-3	-1.18E+0	1.39E+1
PM	disease inc.	2.42E-6	6.39E-8	2.82E-8	2.51E-6	8.36E-9	2.43E-8	4.58E-9	4.84E-7	3.03E-6
IR	kBq U-235 eq	8.57E-1	4.52E-2	5.70E-3	9.08E-1	6.21E-3	7.93E-3	3.59E-3	-1.58E-2	9.10E-1
ETP-fw	CTUe	9.02E+2	9.60E+0	2.91E+1	9.41E+2	1.15E+0	6.39E+0	3.25E+2	9.86E+1	1.37E+3
HTP-c	CTUh	3.76E-8	3.13E-10	1.50E-9	3.94E-8	4.11E-11	1.97E-9	2.72E-11	9.35E-9	5.08E-8
HTP-nc	CTUh	7.24E-7	1.05E-8	3.70E-8	7.71E-7	1.38E-9	1.57E-8	5.81E-10	1.59E-7	9.47E-7
SQP	Pt	4.01E+2	9.29E+0	5.53E+0	4.15E+2	1.22E+0	1.25E+0	1.67E+0	-3.96E+2	2.37E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	8.66E+1	5.73E-4	5.10E+1	1.38E+2	2.04E-2	7.71E-2	4.48E-2	-5.64E+1	8.14E+1
PERM	MJ	0	1.34E-1	0	1.34E-1	0	0	0	0	1.34E-1
PERT	MJ	8.66E+1	1.35E-1	5.10E+1	1.38E+2	2.04E-2	7.71E-2	4.48E-2	-5.64E+1	8.15E+1
PENRE	MJ	8.15E+2	9.03E-2	5.12E+0	8.20E+2	1.51E+0	2.16E+0	7.36E-1	-9.44E+1	7.30E+2
PENRM	MJ	0	1.14E+1	0	1.14E+1	0	0	0	0	1.14E+1
PENRT	MJ	8.15E+2	1.14E+1	5.12E+0	8.31E+2	1.51E+0	2.16E+0	7.36E-1	-9.44E+1	7.41E+2
PET	MJ	9.01E+2	1.16E+1	5.61E+1	9.69E+2	1.53E+0	2.24E+0	7.80E-1	-1.51E+2	8.23E+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	3.84E-1	1.31E-3	4.17E-3	3.90E-1	1.61E-4	2.75E-3	8.70E-4	-2.49E-3	3.91E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	9.69E-3	2.72E-5	3.39E-6	9.72E-3	3.63E-6	7.36E-6	8.27E-7	-4.01E-3	5.72E-3
NHWD	kg	6.09E+0	6.79E-1	5.70E-2	6.82E+0	8.81E-2	1.44E-1	2.82E+0	1.33E+0	1.12E+1
RWD	kg	8.84E-4	7.08E-5	4.95E-6	9.60E-4	9.66E-6	1.08E-5	4.61E-6	-1.59E-5	9.69E-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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