

Environmental Profile

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

Ecochain v3.5.80



Product: 4059517 - TigrisGas PEXc/Al/PE P.16x2.0 L=100CorYL
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	7.39E+1	1.49E+0	3.80E+0	7.91E+1	1.92E-1	3.39E+1	7.33E-1	-4.46E+0	1.10E+2
GWP-f	kg CO2 eq	7.76E+1	1.49E+0	3.38E+0	8.24E+1	1.92E-1	2.98E+1	7.31E-1	-5.51E+0	1.08E+2
GWP-b	kg CO2 eq	-3.85E+0	6.75E-4	4.13E-1	-3.44E+0	1.17E-4	4.17E+0	2.58E-3	1.00E+0	1.74E+0
GWP-luluc	kg CO2 eq	1.62E-1	5.51E-4	3.02E-3	1.66E-1	6.79E-5	1.04E-4	1.54E-5	4.49E-2	2.11E-1
ODP	kg CFC11 eq	3.16E-6	3.28E-7	1.93E-7	3.68E-6	4.42E-8	4.85E-8	1.90E-8	-1.56E-6	2.24E-6
AP	mol H+ eq	4.11E-1	9.09E-3	2.96E-2	4.50E-1	1.09E-3	4.19E-3	4.67E-4	7.10E-2	5.27E-1
EP-fw	kg P eq	2.52E-3	1.49E-5	1.69E-4	2.70E-3	1.58E-6	5.03E-6	7.11E-7	3.22E-4	3.03E-3
EP-m	kg N eq	6.79E-2	3.14E-3	3.39E-3	7.45E-2	3.91E-4	1.83E-3	3.04E-4	7.39E-3	8.44E-2
EP-T	mol N eq	7.65E-1	3.47E-2	3.90E-2	8.38E-1	4.31E-3	2.07E-2	1.89E-3	8.12E-2	9.46E-1
POCP	kg NMVOC eq	2.59E-1	9.86E-3	1.31E-2	2.82E-1	1.23E-3	5.63E-3	6.97E-4	2.24E-2	3.12E-1
ADP-mm	kg Sb eq	7.17E-4	3.74E-5	3.86E-4	1.14E-3	4.97E-6	4.19E-6	4.67E-7	-3.21E-3	-2.06E-3
ADP-f	MJ	1.53E+3	2.24E+1	3.00E+1	1.58E+3	2.95E+0	3.00E+0	1.42E+0	-1.95E+2	1.39E+3
WDP	m3 depriv.	3.00E+1	7.98E-2	1.09E+0	3.12E+1	9.04E-3	4.19E-2	7.00E-3	-1.16E+0	3.01E+1
PM	disease inc.	4.30E-6	1.33E-7	1.94E-7	4.62E-6	1.73E-8	4.12E-8	9.43E-9	8.98E-7	5.59E-6
IR	kBq U-235 eq	1.64E+0	9.40E-2	2.64E-2	1.76E+0	1.29E-2	1.10E-2	7.21E-3	5.62E-3	1.80E+0
ETP-fw	CTUe	1.53E+3	1.99E+1	2.42E+2	1.79E+3	2.39E+0	1.14E+1	5.49E+2	2.16E+2	2.57E+3
HTP-c	CTUh	6.53E-8	6.52E-10	1.24E-8	7.84E-8	8.51E-11	4.05E-9	5.20E-11	1.65E-8	9.91E-8
HTP-nc	CTUh	1.28E-6	2.18E-8	3.12E-7	1.61E-6	2.85E-9	3.15E-8	1.12E-9	2.82E-7	1.93E-6
SQP	Pt	5.37E+2	1.93E+1	4.51E+1	6.02E+2	2.52E+0	1.78E+0	3.45E+0	-4.40E+2	1.69E+2
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.29E+2	1.45E-3	4.69E+2	5.97E+2	4.23E-2	1.26E-1	8.55E-2	-5.74E+1	5.40E+2
PERM	MJ	0	2.78E-1	0	2.78E-1	0	0	0	0	2.78E-1
PERT	MJ	1.29E+2	2.80E-1	4.69E+2	5.97E+2	4.23E-2	1.26E-1	8.55E-2	-5.74E+1	5.40E+2
PENRE	MJ	1.63E+3	2.29E-1	3.20E+1	1.67E+3	3.13E+0	3.20E+0	1.50E+0	-2.21E+2	1.45E+3
PENRM	MJ	0	2.36E+1	0	2.36E+1	0	0	0	0	2.36E+1
PENRT	MJ	1.63E+3	2.38E+1	3.20E+1	1.69E+3	3.13E+0	3.20E+0	1.50E+0	-2.21E+2	1.48E+3
PET	MJ	1.76E+3	2.41E+1	5.01E+2	2.29E+3	3.17E+0	3.32E+0	1.59E+0	-2.79E+2	2.02E+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	7.44E-1	2.72E-3	3.04E-2	7.78E-1	3.33E-4	5.53E-3	1.77E-3	1.78E-2	8.03E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.64E-2	5.65E-5	6.30E-6	1.65E-2	7.54E-6	1.23E-5	1.69E-6	-6.85E-3	9.65E-3
NHWD	kg	1.07E+1	1.41E+0	1.22E-1	1.23E+1	1.83E-1	2.37E-1	5.85E+0	2.34E+0	2.09E+1
RWD	kg	1.69E-3	1.47E-4	9.21E-6	1.84E-3	2.00E-5	1.45E-5	9.40E-6	-1.65E-6	1.89E-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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