

Environmental Profile

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

Ecochain v3.5.80



Product: 4059518 - TigrisGas PEXc/Al/PE P.20x2.25 L=50CorYL
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	4.92E+1	7.20E-1	1.15E+0	5.11E+1	1.22E-1	2.20E+1	4.51E-1	-8.85E-1	7.27E+1
GWP-f	kg CO2 eq	5.23E+1	7.19E-1	8.62E-1	5.39E+1	1.22E-1	1.84E+1	4.50E-1	-1.88E+0	7.10E+1
GWP-b	kg CO2 eq	-3.26E+0	3.24E-4	2.91E-1	-2.97E+0	7.39E-5	3.62E+0	1.86E-3	9.59E-1	1.61E+0
GWP-luluc	kg CO2 eq	1.18E-1	2.67E-4	5.91E-4	1.19E-1	4.30E-5	7.71E-5	1.01E-5	3.19E-2	1.51E-1
ODP	kg CFC11 eq	2.18E-6	1.59E-7	4.97E-8	2.39E-6	2.80E-8	3.64E-8	1.21E-8	-9.31E-7	1.53E-6
AP	mol H+ eq	2.84E-1	4.45E-3	5.68E-3	2.94E-1	6.93E-4	2.81E-3	2.99E-4	5.33E-2	3.51E-1
EP-fw	kg P eq	1.68E-3	7.19E-6	3.39E-5	1.72E-3	1.00E-6	3.61E-6	4.67E-7	2.23E-4	1.95E-3
EP-m	kg N eq	4.68E-2	1.53E-3	7.85E-4	4.92E-2	2.48E-4	1.21E-3	1.91E-4	5.75E-3	5.66E-2
EP-T	mol N eq	5.25E-1	1.69E-2	8.32E-3	5.50E-1	2.73E-3	1.37E-2	1.21E-3	6.30E-2	6.31E-1
POCP	kg NMVOC eq	1.76E-1	4.80E-3	2.76E-3	1.83E-1	7.81E-4	3.74E-3	4.42E-4	1.76E-2	2.06E-1
ADP-mm	kg Sb eq	4.58E-4	1.80E-5	6.96E-5	5.46E-4	3.15E-6	3.47E-6	2.99E-7	-2.39E-3	-1.84E-3
ADP-f	MJ	9.87E+2	1.08E+1	7.05E+0	1.00E+3	1.87E+0	2.29E+0	9.09E-1	-1.08E+2	9.02E+2
WDP	m3 depriv.	1.94E+1	3.84E-2	2.30E-1	1.97E+1	5.73E-3	2.61E-2	4.50E-3	-1.10E+0	1.86E+1
PM	disease inc.	3.03E-6	6.39E-8	4.25E-8	3.13E-6	1.10E-8	2.91E-8	6.01E-9	6.48E-7	3.83E-6
IR	kBq U-235 eq	1.09E+0	4.54E-2	7.92E-3	1.15E+0	8.16E-3	8.73E-3	4.68E-3	-6.57E-4	1.17E+0
ETP-fw	CTUe	1.10E+3	9.62E+0	4.61E+1	1.16E+3	1.52E+0	7.87E+0	4.09E+2	1.47E+2	1.72E+3
HTP-c	CTUh	4.71E-8	3.15E-10	2.38E-9	4.98E-8	5.39E-11	2.57E-9	3.51E-11	1.22E-8	6.47E-8
HTP-nc	CTUh	9.10E-7	1.05E-8	5.88E-8	9.80E-7	1.81E-9	2.01E-8	7.53E-10	2.07E-7	1.21E-6
SQP	Pt	4.24E+2	9.29E+0	8.72E+0	4.42E+2	1.60E+0	1.40E+0	2.19E+0	-3.94E+2	5.37E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	9.77E+1	9.14E-4	8.32E+1	1.81E+2	2.68E-2	9.07E-2	5.79E-2	-5.38E+1	1.27E+2
PERM	MJ	0	1.34E-1	0	1.34E-1	0	0	0	0	1.34E-1
PERT	MJ	9.77E+1	1.35E-1	8.32E+1	1.81E+2	2.68E-2	9.07E-2	5.79E-2	-5.38E+1	1.27E+2
PENRE	MJ	1.06E+3	1.44E-1	7.55E+0	1.06E+3	1.98E+0	2.44E+0	9.64E-1	-1.24E+2	9.45E+2
PENRM	MJ	0	1.13E+1	0	1.13E+1	0	0	0	0	1.13E+1
PENRT	MJ	1.06E+3	1.15E+1	7.55E+0	1.07E+3	1.98E+0	2.44E+0	9.64E-1	-1.24E+2	9.56E+2
PET	MJ	1.15E+3	1.16E+1	9.07E+1	1.26E+3	2.01E+0	2.53E+0	1.02E+0	-1.78E+2	1.08E+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	4.90E-1	1.31E-3	6.38E-3	4.98E-1	2.11E-4	3.50E-3	1.14E-3	7.19E-3	5.10E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.22E-2	2.72E-5	4.21E-6	1.22E-2	4.77E-6	8.73E-6	1.08E-6	-5.06E-3	7.19E-3
NHWD	kg	7.58E+0	6.78E-1	7.17E-2	8.33E+0	1.16E-1	1.70E-1	3.71E+0	1.72E+0	1.40E+1
RWD	kg	1.13E-3	7.11E-5	6.16E-6	1.21E-3	1.27E-5	1.18E-5	6.04E-6	-1.48E-6	1.24E-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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