

# Environmental Profile

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

Ecochain v3.5.80



Product: 3013508 - Tigris PEXc/Al/PE P.20x2.25 L=75 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

A1 Raw material supply A2 Transport A3 Manufacturing

## Construction process stage

A4 Transport gate to site  
 A5 Assembly / Construction installation process

## Use stage

B1 Use B2 Maintenance B3 Repair B4 Replacement B5 Refurbishment  
 B6 Operational energy use B7 Operational water use

## End-of-Life stage

C1 De-construction demolition C2 Transport C3 Waste processing  
 C4 Disposal

## Benefits and loads beyond the system boundaries

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	7.42E+1	1.10E+0	2.29E+0	7.76E+1	1.82E-1	3.16E+1	6.77E-1	-1.32E+0	1.09E+2
GWP-f	kg CO2 eq	7.78E+1	1.10E+0	1.88E+0	8.08E+1	1.82E-1	2.74E+1	6.75E-1	-2.36E+0	1.07E+2
GWP-b	kg CO2 eq	-3.84E+0	4.97E-4	4.09E-1	-3.43E+0	1.11E-4	4.17E+0	2.78E-3	9.96E-1	1.74E+0
GWP-luluc	kg CO2 eq	1.74E-1	4.09E-4	1.51E-3	1.76E-1	6.45E-5	1.00E-4	1.51E-5	5.15E-2	2.28E-1
ODP	kg CFC11 eq	3.46E-6	2.43E-7	1.08E-7	3.81E-6	4.20E-8	4.70E-8	1.81E-8	-1.34E-6	2.58E-6
AP	mol H+ eq	4.25E-1	6.82E-3	1.47E-2	4.46E-1	1.04E-3	3.94E-3	4.49E-4	8.30E-2	5.35E-1
EP-fw	kg P eq	2.48E-3	1.10E-5	8.52E-5	2.57E-3	1.50E-6	4.83E-6	6.99E-7	3.79E-4	2.96E-3
EP-m	kg N eq	6.90E-2	2.35E-3	1.81E-3	7.32E-2	3.72E-4	1.72E-3	2.87E-4	9.37E-3	8.50E-2
EP-T	mol N eq	7.73E-1	2.59E-2	2.02E-2	8.19E-1	4.10E-3	1.94E-2	1.82E-3	1.03E-1	9.47E-1
POCP	kg NMVOC eq	2.61E-1	7.36E-3	6.74E-3	2.75E-1	1.17E-3	5.27E-3	6.63E-4	2.90E-2	3.11E-1
ADP-mm	kg Sb eq	5.93E-4	2.77E-5	1.87E-4	8.08E-4	4.72E-6	4.14E-6	4.48E-7	-3.59E-3	-2.77E-3
ADP-f	MJ	1.48E+3	1.66E+1	1.61E+1	1.52E+3	2.80E+0	2.93E+0	1.36E+0	-1.54E+2	1.37E+3
WDP	m3 depriv.	2.86E+1	5.90E-2	5.61E-1	2.92E+1	8.59E-3	3.51E-2	6.71E-3	-9.75E-1	2.83E+1
PM	disease inc.	4.53E-6	9.81E-8	1.01E-7	4.73E-6	1.65E-8	3.96E-8	9.02E-9	1.03E-6	5.83E-6
IR	kBq U-235 eq	1.69E+0	6.96E-2	1.59E-2	1.77E+0	1.22E-2	1.08E-2	7.02E-3	3.34E-2	1.83E+0
ETP-fw	CTUe	1.59E+3	1.48E+1	1.20E+2	1.72E+3	2.27E+0	1.09E+1	6.13E+2	2.58E+2	2.61E+3
HTP-c	CTUh	7.02E-8	4.83E-10	6.15E-9	7.68E-8	8.09E-11	3.73E-9	5.26E-11	1.89E-8	9.96E-8
HTP-nc	CTUh	1.35E-6	1.61E-8	1.54E-7	1.52E-6	2.71E-9	2.92E-8	1.13E-9	3.23E-7	1.88E-6
SQP	Pt	5.30E+2	1.43E+1	2.24E+1	5.67E+2	2.39E+0	1.79E+0	3.28E+0	-4.37E+2	1.37E+2
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.30E+2	1.37E-3	2.26E+2	3.56E+2	4.02E-2	1.20E-1	8.68E-2	-5.53E+1	3.01E+2
PERM	MJ	0	2.05E-1	0	2.05E-1	0	0	0	0	2.05E-1
PERT	MJ	1.30E+2	2.07E-1	2.26E+2	3.56E+2	4.02E-2	1.20E-1	8.68E-2	-5.53E+1	3.01E+2
PENRE	MJ	1.59E+3	2.16E-1	1.72E+1	1.60E+3	2.97E+0	3.12E+0	1.44E+0	-1.77E+2	1.43E+3
PENRM	MJ	0	1.74E+1	0	1.74E+1	0	0	0	0	1.74E+1
PENRT	MJ	1.59E+3	1.76E+1	1.72E+1	1.62E+3	2.97E+0	3.12E+0	1.44E+0	-1.77E+2	1.45E+3
PET	MJ	1.72E+3	1.78E+1	2.43E+2	1.98E+3	3.01E+0	3.24E+0	1.53E+0	-2.33E+2	1.75E+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	7.21E-1	2.01E-3	1.56E-2	7.38E-1	3.17E-4	5.03E-3	1.71E-3	2.86E-2	7.74E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.83E-2	4.17E-5	6.02E-6	1.83E-2	7.16E-6	1.17E-5	1.62E-6	-7.58E-3	1.08E-2
NHWD	kg	1.13E+1	1.04E+0	1.07E-1	1.24E+1	1.73E-1	2.26E-1	5.56E+0	2.66E+0	2.10E+1
RWD	kg	1.79E-3	1.09E-4	8.81E-6	1.91E-3	1.90E-5	1.44E-5	9.06E-6	3.22E-5	1.99E-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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