

Environmental Profile

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

Ecochain v3.5.80



Product: 3061210 - Tigris PEXc/Al/PE P.Ins20GY 16x2.0 L=50
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	2.30E+1	1.07E+0	2.87E+0	2.70E+1	9.67E-2	4.24E+1	3.66E-1	-3.57E+0	6.62E+1
GWP-f	kg CO2 eq	4.74E+1	1.07E+0	2.36E+0	5.08E+1	9.66E-2	1.61E+1	3.65E-1	-7.72E+0	5.97E+1
GWP-b	kg CO2 eq	-2.45E+1	4.88E-4	5.10E-1	-2.39E+1	5.87E-5	2.63E+1	1.35E-3	4.16E+0	6.49E+0
GWP-luluc	kg CO2 eq	1.18E-1	3.95E-4	1.89E-3	1.20E-1	3.42E-5	2.12E-4	7.83E-6	-1.21E-2	1.08E-1
ODP	kg CFC11 eq	2.64E-6	2.36E-7	1.35E-7	3.01E-6	2.23E-8	1.02E-7	9.57E-9	-1.43E-6	1.72E-6
AP	mol H+ eq	2.55E-1	6.44E-3	1.84E-2	2.80E-1	5.51E-4	4.92E-3	2.36E-4	8.94E-4	2.87E-1
EP-fw	kg P eq	1.68E-3	1.07E-5	1.07E-4	1.79E-3	7.95E-7	8.48E-6	3.62E-7	-2.84E-4	1.52E-3
EP-m	kg N eq	4.81E-2	2.24E-3	2.27E-3	5.26E-2	1.97E-4	1.99E-3	1.53E-4	-5.39E-3	4.95E-2
EP-T	mol N eq	5.30E-1	2.47E-2	2.53E-2	5.80E-1	2.17E-3	2.21E-2	9.56E-4	-6.59E-2	5.39E-1
POCP	kg NMVOC eq	1.77E-1	7.03E-3	8.44E-3	1.93E-1	6.21E-4	6.24E-3	3.51E-4	-2.23E-2	1.78E-1
ADP-mm	kg Sb eq	4.99E-4	2.70E-5	2.35E-4	7.61E-4	2.50E-6	1.25E-5	2.36E-7	-1.78E-3	-1.00E-3
ADP-f	MJ	9.23E+2	1.61E+1	2.02E+1	9.59E+2	1.48E+0	6.80E+0	7.17E-1	-1.86E+2	7.82E+2
WDP	m3 depriv.	2.00E+1	5.75E-2	7.03E-1	2.07E+1	4.55E-3	5.98E-2	3.52E-3	-6.64E+0	1.42E+1
PM	disease inc.	3.03E-6	9.57E-8	1.27E-7	3.25E-6	8.72E-9	6.04E-8	4.76E-9	-2.67E-7	3.06E-6
IR	kBq U-235 eq	1.30E+0	6.76E-2	1.98E-2	1.38E+0	6.48E-3	2.93E-2	3.66E-3	-3.65E-1	1.06E+0
ETP-fw	CTUe	1.31E+3	1.44E+1	1.50E+2	1.47E+3	1.20E+0	1.42E+1	2.91E+2	-2.47E+2	1.53E+3
HTP-c	CTUh	4.65E-8	4.68E-10	7.71E-9	5.46E-8	4.29E-11	2.97E-9	2.67E-11	-1.41E-9	5.63E-8
HTP-nc	CTUh	7.99E-7	1.57E-8	1.93E-7	1.01E-6	1.44E-9	2.49E-8	5.75E-10	1.04E-8	1.04E-6
SQP	Pt	2.32E+3	1.39E+1	2.81E+1	2.36E+3	1.27E+0	4.29E+0	1.74E+0	-2.46E+3	-9.35E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	3.71E+2	7.35E-4	2.83E+2	6.55E+2	2.13E-2	2.25E-1	4.39E-2	-3.85E+2	2.71E+2
PERM	MJ	0	2.01E-1	0	2.01E-1	0	0	0	0	2.01E-1
PERT	MJ	3.71E+2	2.01E-1	2.83E+2	6.55E+2	2.13E-2	2.25E-1	4.39E-2	-3.85E+2	2.71E+2
PENRE	MJ	9.87E+2	1.16E-1	2.16E+1	1.01E+3	1.58E+0	7.23E+0	7.60E-1	-2.06E+2	8.13E+2
PENRM	MJ	0	1.70E+1	0	1.70E+1	0	0	0	0	1.70E+1
PENRT	MJ	9.87E+2	1.71E+1	2.16E+1	1.03E+3	1.58E+0	7.23E+0	7.60E-1	-2.06E+2	8.30E+2
PET	MJ	1.36E+3	1.73E+1	3.05E+2	1.68E+3	1.60E+0	7.45E+0	8.04E-1	-5.90E+2	1.10E+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	4.76E-1	1.96E-3	1.96E-2	4.97E-1	1.68E-4	5.06E-3	8.97E-4	-1.52E-1	3.52E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	8.95E-3	4.07E-5	7.51E-6	8.99E-3	3.79E-6	1.99E-5	8.55E-7	-3.80E-3	5.22E-3
NHWD	kg	7.96E+0	1.02E+0	1.34E-1	9.11E+0	9.20E-2	4.06E-1	2.95E+0	8.00E-2	1.26E+1
RWD	kg	1.38E-3	1.06E-4	1.10E-5	1.49E-3	1.01E-5	4.14E-5	4.75E-6	-3.84E-4	1.16E-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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