

Environmental Profile

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

Ecochain v3.5.80



Product: 3061205 - Tigris PEXc/AI/PE P.Ins10GY 20x2.25 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	3.36E+1	8.46E-1	1.31E+0	3.58E+1	9.42E-2	3.09E+1	3.25E-1	1.38E+0	6.84E+1
GWP-f	kg CO2 eq	4.97E+1	8.45E-1	9.21E-1	5.15E+1	9.41E-2	1.37E+1	3.24E-1	-4.94E-1	6.52E+1
GWP-b	kg CO2 eq	-1.62E+1	3.82E-4	3.88E-1	-1.59E+1	5.72E-5	1.71E+1	1.84E-3	1.85E+0	3.12E+0
GWP-luluc	kg CO2 eq	1.32E-1	3.13E-4	5.57E-4	1.33E-1	3.33E-5	1.29E-4	8.47E-6	2.17E-2	1.55E-1
ODP	kg CFC11 eq	2.41E-6	1.86E-7	5.34E-8	2.65E-6	2.17E-8	6.06E-8	9.53E-9	-8.68E-7	1.87E-6
AP	mol H+ eq	2.82E-1	5.19E-3	5.29E-3	2.92E-1	5.36E-4	3.27E-3	2.39E-4	4.33E-2	3.39E-1
EP-fw	kg P eq	1.70E-3	8.46E-6	3.25E-5	1.74E-3	7.75E-7	5.27E-6	3.91E-7	8.46E-5	1.83E-3
EP-m	kg N eq	4.81E-2	1.79E-3	8.05E-4	5.07E-2	1.92E-4	1.34E-3	1.47E-4	2.88E-3	5.52E-2
EP-T	mol N eq	5.35E-1	1.98E-2	8.21E-3	5.63E-1	2.11E-3	1.51E-2	9.66E-4	2.84E-2	6.10E-1
POCP	kg NMVOC eq	1.77E-1	5.61E-3	2.70E-3	1.85E-1	6.04E-4	4.19E-3	3.44E-4	5.76E-3	1.96E-1
ADP-mm	kg Sb eq	4.13E-4	2.12E-5	6.24E-5	4.96E-4	2.44E-6	6.82E-6	2.38E-7	-2.56E-3	-2.05E-3
ADP-f	MJ	8.65E+2	1.27E+1	7.29E+0	8.85E+2	1.45E+0	4.02E+0	7.23E-1	-9.07E+1	8.01E+2
WDP	m3 depriv.	1.76E+1	4.52E-2	2.25E-1	1.79E+1	4.43E-3	3.01E-2	3.63E-3	-2.72E+0	1.52E+1
PM	disease inc.	3.23E-6	7.52E-8	4.25E-8	3.35E-6	8.50E-9	3.86E-8	4.72E-9	3.80E-7	3.78E-6
IR	kBq U-235 eq	1.14E+0	5.33E-2	8.95E-3	1.20E+0	6.32E-3	1.70E-2	3.84E-3	-1.20E-1	1.11E+0
ETP-fw	CTUe	1.20E+3	1.13E+1	4.27E+1	1.26E+3	1.17E+0	9.34E+0	4.30E+2	4.53E+1	1.74E+3
HTP-c	CTUh	5.34E-8	3.70E-10	2.21E-9	5.60E-8	4.18E-11	2.31E-9	3.13E-11	7.95E-9	6.63E-8
HTP-nc	CTUh	9.49E-7	1.23E-8	5.42E-8	1.02E-6	1.40E-9	1.86E-8	6.61E-10	1.66E-7	1.20E-6
SQP	Pt	1.54E+3	1.09E+1	8.15E+0	1.56E+3	1.24E+0	2.66E+0	1.70E+0	-1.47E+3	8.99E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	2.60E+2	9.27E-4	7.37E+1	3.34E+2	2.07E-2	1.38E-1	5.17E-2	-2.20E+2	1.14E+2
PERM	MJ	0	1.58E-1	0	1.58E-1	0	0	0	0	1.58E-1
PERT	MJ	2.60E+2	1.58E-1	7.37E+1	3.34E+2	2.07E-2	1.38E-1	5.17E-2	-2.20E+2	1.14E+2
PENRE	MJ	9.25E+2	1.46E-1	7.82E+0	9.33E+2	1.53E+0	4.28E+0	7.66E-1	-1.03E+2	8.37E+2
PENRM	MJ	0	1.34E+1	0	1.34E+1	0	0	0	0	1.34E+1
PENRT	MJ	9.25E+2	1.35E+1	7.82E+0	9.47E+2	1.53E+0	4.28E+0	7.66E-1	-1.03E+2	8.50E+2
PET	MJ	1.19E+3	1.37E+1	8.16E+1	1.28E+3	1.55E+0	4.42E+0	8.18E-1	-3.23E+2	9.65E+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	4.49E-1	1.54E-3	6.25E-3	4.57E-1	1.64E-4	3.43E-3	9.10E-4	-3.54E-2	4.26E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.29E-2	3.20E-5	5.58E-6	1.30E-2	3.70E-6	1.23E-5	8.60E-7	-5.34E-3	7.63E-3
NHWD	kg	8.39E+0	7.98E-1	9.34E-2	9.28E+0	8.96E-2	2.60E-1	2.87E+0	1.27E+0	1.38E+1
RWD	kg	1.22E-3	8.36E-5	8.16E-6	1.31E-3	9.83E-6	2.37E-5	4.83E-6	-1.27E-4	1.23E-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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