

Environmental Profile

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

Ecochain v3.5.80



Product: 3004378 - Tigris PEXc/AI/PE P.Ins9RD 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	3.16E+1	9.01E-1	6.09E-1	3.31E+1	8.30E-2	1.69E+1	3.08E-1	-8.07E-1	4.96E+1
GWP-f	kg CO2 eq	3.51E+1	9.00E-1	3.84E-1	3.64E+1	8.29E-2	1.27E+1	3.07E-1	-1.87E+0	4.77E+1
GWP-b	kg CO2 eq	-3.64E+0	4.09E-4	2.25E-1	-3.41E+0	5.04E-5	4.17E+0	1.25E-3	1.04E+0	1.81E+0
GWP-luluc	kg CO2 eq	8.25E-2	3.32E-4	1.71E-4	8.30E-2	2.94E-5	6.80E-5	6.90E-6	1.79E-2	1.01E-1
ODP	kg CFC11 eq	1.51E-6	1.98E-7	2.25E-8	1.73E-6	1.91E-8	3.23E-8	8.25E-9	-6.98E-7	1.09E-6
AP	mol H+ eq	1.90E-1	5.44E-3	1.57E-3	1.97E-1	4.72E-4	2.19E-3	2.04E-4	3.23E-2	2.32E-1
EP-fw	kg P eq	1.19E-3	9.03E-6	1.04E-5	1.21E-3	6.82E-7	3.04E-6	3.18E-7	1.05E-4	1.31E-3
EP-m	kg N eq	3.14E-2	1.89E-3	3.08E-4	3.36E-2	1.69E-4	9.31E-4	1.31E-4	3.00E-3	3.78E-2
EP-T	mol N eq	3.51E-1	2.08E-2	2.87E-3	3.74E-1	1.86E-3	1.05E-2	8.27E-4	3.22E-2	4.20E-1
POCP	kg NMVOC eq	1.21E-1	5.93E-3	9.26E-4	1.28E-1	5.33E-4	2.88E-3	3.02E-4	8.81E-3	1.40E-1
ADP-mm	kg Sb eq	2.86E-4	2.26E-5	1.62E-5	3.24E-4	2.15E-6	3.39E-6	2.04E-7	-1.61E-3	-1.28E-3
ADP-f	MJ	6.82E+2	1.36E+1	2.84E+0	6.98E+2	1.27E+0	2.07E+0	6.19E-1	-8.29E+1	6.19E+2
WDP	m3 depriv.	1.53E+1	4.82E-2	7.74E-2	1.54E+1	3.91E-3	2.19E-2	3.18E-3	-1.38E+0	1.41E+1
PM	disease inc.	2.03E-6	8.03E-8	1.54E-8	2.13E-6	7.49E-9	2.36E-8	4.10E-9	3.68E-7	2.53E-6
IR	kBq U-235 eq	8.24E-1	5.68E-2	4.14E-3	8.85E-1	5.56E-3	8.19E-3	3.18E-3	-3.61E-2	8.66E-1
ETP-fw	CTUe	7.54E+2	1.21E+1	1.25E+1	7.79E+2	1.03E+0	6.29E+0	2.74E+2	6.18E+1	1.12E+3
HTP-c	CTUh	3.23E-8	3.94E-10	6.57E-10	3.33E-8	3.68E-11	1.91E-9	2.39E-11	7.37E-9	4.27E-8
HTP-nc	CTUh	6.12E-7	1.32E-8	1.55E-8	6.41E-7	1.23E-9	1.49E-8	5.11E-10	1.26E-7	7.83E-7
SQP	Pt	4.25E+2	1.17E+1	2.45E+0	4.39E+2	1.09E+0	1.27E+0	1.49E+0	-4.46E+2	-3.75E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	8.82E+1	7.26E-4	1.84E+1	1.07E+2	1.83E-2	7.75E-2	3.91E-2	-6.56E+1	4.11E+1
PERM	MJ	0	1.68E-1	0	1.68E-1	0	0	0	0	1.68E-1
PERT	MJ	8.82E+1	1.69E-1	1.84E+1	1.07E+2	1.83E-2	7.75E-2	3.91E-2	-6.56E+1	4.13E+1
PENRE	MJ	7.30E+2	1.14E-1	3.06E+0	7.33E+2	1.35E+0	2.20E+0	6.57E-1	-9.42E+1	6.43E+2
PENRM	MJ	0	1.43E+1	0	1.43E+1	0	0	0	0	1.43E+1
PENRT	MJ	7.30E+2	1.44E+1	3.06E+0	7.47E+2	1.35E+0	2.20E+0	6.57E-1	-9.42E+1	6.57E+2
PET	MJ	8.18E+2	1.46E+1	2.14E+1	8.54E+2	1.37E+0	2.28E+0	6.96E-1	-1.60E+2	6.98E+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	3.43E-1	1.64E-3	2.14E-3	3.47E-1	1.44E-4	2.62E-3	7.76E-4	-1.21E-2	3.38E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	8.19E-3	3.42E-5	3.22E-6	8.23E-3	3.26E-6	7.34E-6	7.40E-7	-3.41E-3	4.83E-3
NHWD	kg	5.13E+0	8.53E-1	5.28E-2	6.04E+0	7.89E-2	1.44E-1	2.53E+0	1.06E+0	9.85E+0
RWD	kg	8.47E-4	8.90E-5	4.70E-6	9.41E-4	8.66E-6	1.12E-5	4.11E-6	-3.77E-5	9.27E-4
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



Ecochain Technologies BV
H.J.E. Wenckebachweg 123, 1096 AM Amsterdam, The Netherlands
<https://www.ecochain.com>
+31 20 3035 777