

Environmental Profile

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

Ecochain v3.5.80



Product: 3061204 - Tigris PEXc/AI/PE P.Ins9GY 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]; **PENRE** = 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	2.29E+1	8.37E-1	8.29E-1	2.45E+1	6.98E-2	2.36E+1	2.50E-1	-4.58E-1	4.80E+1
GWP-f	kg CO2 eq	3.50E+1	8.36E-1	5.36E-1	3.63E+1	6.97E-2	1.07E+1	2.49E-1	-1.91E+0	4.55E+1
GWP-b	kg CO2 eq	-1.22E+1	3.79E-4	2.93E-1	-1.19E+1	4.23E-5	1.29E+1	1.20E-3	1.44E+0	2.42E+0
GWP-luluc	kg CO2 eq	8.83E-2	3.09E-4	2.59E-4	8.89E-2	2.47E-5	9.85E-5	6.02E-6	1.11E-2	1.00E-1
ODP	kg CFC11 eq	1.71E-6	1.84E-7	3.13E-8	1.92E-6	1.61E-8	4.62E-8	7.00E-9	-7.27E-7	1.27E-6
AP	mol H+ eq	1.93E-1	5.07E-3	2.40E-3	2.01E-1	3.97E-4	2.52E-3	1.74E-4	2.39E-2	2.28E-1
EP-fw	kg P eq	1.22E-3	8.38E-6	1.56E-5	1.24E-3	5.74E-7	4.03E-6	2.78E-7	1.84E-5	1.27E-3
EP-m	kg N eq	3.35E-2	1.76E-3	4.39E-4	3.57E-2	1.42E-4	1.04E-3	1.10E-4	8.22E-4	3.78E-2
EP-T	mol N eq	3.73E-1	1.94E-2	4.19E-3	3.97E-1	1.57E-3	1.16E-2	7.05E-4	6.45E-3	4.17E-1
POCP	kg NMVOC eq	1.25E-1	5.52E-3	1.36E-3	1.31E-1	4.48E-4	3.23E-3	2.54E-4	-5.27E-5	1.35E-1
ADP-mm	kg Sb eq	3.05E-4	2.10E-5	2.59E-5	3.52E-4	1.80E-6	5.21E-6	1.74E-7	-1.63E-3	-1.27E-3
ADP-f	MJ	6.39E+2	1.26E+1	4.03E+0	6.55E+2	1.07E+0	3.07E+0	5.28E-1	-8.46E+1	5.75E+2
WDP	m3 depriv.	1.33E+1	4.48E-2	1.13E-1	1.34E+1	3.28E-3	2.59E-2	2.64E-3	-2.21E+0	1.12E+1
PM	disease inc.	2.20E-6	7.46E-8	2.23E-8	2.30E-6	6.29E-9	2.94E-8	3.47E-9	1.82E-7	2.52E-6
IR	kBq U-235 eq	8.38E-1	5.27E-2	5.63E-3	8.96E-1	4.68E-3	1.29E-2	2.76E-3	-1.10E-1	8.07E-1
ETP-fw	CTUe	8.27E+2	1.12E+1	1.92E+1	8.58E+2	8.69E-1	7.14E+0	2.74E+2	6.30E-1	1.14E+3
HTP-c	CTUh	3.58E-8	3.66E-10	1.00E-9	3.72E-8	3.09E-11	1.79E-9	2.16E-11	4.17E-9	4.32E-8
HTP-nc	CTUh	6.35E-7	1.22E-8	2.40E-8	6.71E-7	1.04E-9	1.44E-8	4.59E-10	9.38E-8	7.81E-7
SQP	Pt	1.15E+3	1.08E+1	3.73E+0	1.17E+3	9.16E-1	2.00E+0	1.26E+0	-1.11E+3	5.76E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.93E+2	7.26E-4	2.98E+1	2.23E+2	1.54E-2	1.06E-1	3.56E-2	-1.68E+2	5.49E+1
PERM	MJ	0	1.56E-1	0	1.56E-1	0	0	0	0	1.56E-1
PERT	MJ	1.93E+2	1.57E-1	2.98E+1	2.23E+2	1.54E-2	1.06E-1	3.56E-2	-1.68E+2	5.50E+1
PENRE	MJ	6.83E+2	1.14E-1	4.33E+0	6.88E+2	1.14E+0	3.26E+0	5.60E-1	-9.51E+1	5.97E+2
PENRM	MJ	0	1.32E+1	0	1.32E+1	0	0	0	0	1.32E+1
PENRT	MJ	6.83E+2	1.34E+1	4.33E+0	7.01E+2	1.14E+0	3.26E+0	5.60E-1	-9.51E+1	6.11E+2
PET	MJ	8.76E+2	1.35E+1	3.41E+1	9.24E+2	1.15E+0	3.37E+0	5.95E-1	-2.63E+2	6.66E+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	3.26E-1	1.53E-3	3.13E-3	3.30E-1	1.21E-4	2.72E-3	6.63E-4	-3.55E-2	2.99E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	8.26E-3	3.17E-5	4.19E-6	8.29E-3	2.74E-6	9.42E-6	6.29E-7	-3.44E-3	4.87E-3
NHWD	kg	5.74E+0	7.92E-1	6.90E-2	6.60E+0	6.63E-2	2.03E-1	2.13E+0	7.08E-1	9.70E+0
RWD	kg	8.95E-4	8.27E-5	6.13E-6	9.83E-4	7.28E-6	1.80E-5	3.52E-6	-1.18E-4	8.95E-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



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