

Environmental Profile

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

Ecochain v3.5.80



Product: 3061206 - Tigris PEXc/AI/PE P.Ins9GY 16x2.0 L=100
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	5.07E+1	1.57E+0	1.59E+0	5.39E+1	1.40E-1	3.80E+1	5.00E-1	-2.83E-2	9.25E+1
GWP-f	kg CO2 eq	6.68E+1	1.57E+0	1.11E+0	6.95E+1	1.39E-1	2.08E+1	4.98E-1	-1.90E+0	8.91E+1
GWP-b	kg CO2 eq	-1.62E+1	7.14E-4	4.78E-1	-1.57E+1	8.47E-5	1.71E+1	2.41E-3	1.84E+0	3.24E+0
GWP-luluc	kg CO2 eq	1.66E-1	5.82E-4	6.64E-4	1.67E-1	4.94E-5	1.45E-4	1.20E-5	3.33E-2	2.01E-1
ODP	kg CFC11 eq	3.05E-6	3.47E-7	6.45E-8	3.47E-6	3.21E-8	6.79E-8	1.40E-8	-1.22E-6	2.36E-6
AP	mol H+ eq	3.69E-1	9.58E-3	6.30E-3	3.85E-1	7.94E-4	4.12E-3	3.48E-4	6.01E-2	4.50E-1
EP-fw	kg P eq	2.29E-3	1.58E-5	3.88E-5	2.35E-3	1.15E-6	6.15E-6	5.56E-7	1.78E-4	2.54E-3
EP-m	kg N eq	6.19E-2	3.32E-3	9.68E-4	6.62E-2	2.84E-4	1.73E-3	2.20E-4	4.80E-3	7.32E-2
EP-T	mol N eq	6.92E-1	3.66E-2	9.84E-3	7.38E-1	3.13E-3	1.94E-2	1.41E-3	4.98E-2	8.12E-1
POCP	kg NMVOC eq	2.32E-1	1.04E-2	3.23E-3	2.45E-1	8.95E-4	5.35E-3	5.08E-4	1.17E-2	2.64E-1
ADP-mm	kg Sb eq	5.41E-4	3.96E-5	7.40E-5	6.55E-4	3.61E-6	7.20E-6	3.48E-7	-3.24E-3	-2.58E-3
ADP-f	MJ	1.22E+3	2.37E+1	8.78E+0	1.25E+3	2.14E+0	4.44E+0	1.06E+0	-1.36E+2	1.12E+3
WDP	m3 depriv.	2.54E+1	8.43E-2	2.70E-1	2.57E+1	6.57E-3	3.90E-2	5.29E-3	-2.63E+0	2.32E+1
PM	disease inc.	4.11E-6	1.40E-7	5.11E-8	4.30E-6	1.26E-8	4.61E-8	6.94E-9	6.08E-7	4.97E-6
IR	kBq U-235 eq	1.53E+0	9.93E-2	1.09E-2	1.64E+0	9.36E-3	1.82E-2	5.52E-3	-1.01E-1	1.57E+0
ETP-fw	CTUe	1.48E+3	2.11E+1	5.08E+1	1.55E+3	1.74E+0	1.17E+1	5.48E+2	1.12E+2	2.23E+3
HTP-c	CTUh	6.72E-8	6.89E-10	2.64E-9	7.05E-8	6.19E-11	3.24E-9	4.31E-11	1.19E-8	8.58E-8
HTP-nc	CTUh	1.22E-6	2.30E-8	6.45E-8	1.31E-6	2.07E-9	2.57E-8	9.19E-10	2.33E-7	1.57E-6
SQP	Pt	1.58E+3	2.04E+1	9.71E+0	1.61E+3	1.83E+0	2.89E+0	2.52E+0	-1.47E+3	1.43E+2
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	2.78E+2	1.45E-3	8.73E+1	3.65E+2	3.07E-2	1.60E-1	7.12E-2	-2.16E+2	1.49E+2
PERM	MJ	0	2.94E-1	0	2.94E-1	0	0	0	0	2.94E-1
PERT	MJ	2.78E+2	2.95E-1	8.73E+1	3.65E+2	3.07E-2	1.60E-1	7.12E-2	-2.16E+2	1.49E+2
PENRE	MJ	1.31E+3	2.29E-1	9.42E+0	1.32E+3	2.27E+0	4.72E+0	1.12E+0	-1.55E+2	1.17E+3
PENRM	MJ	0	2.49E+1	0	2.49E+1	0	0	0	0	2.49E+1
PENRT	MJ	1.31E+3	2.52E+1	9.42E+0	1.34E+3	2.27E+0	4.72E+0	1.12E+0	-1.55E+2	1.19E+3
PET	MJ	1.58E+3	2.55E+1	9.67E+1	1.71E+3	2.30E+0	4.88E+0	1.19E+0	-3.71E+2	1.34E+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	6.17E-1	2.87E-3	7.48E-3	6.27E-1	2.42E-4	4.66E-3	1.33E-3	-2.24E-2	6.11E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.64E-2	5.97E-5	6.87E-6	1.65E-2	5.47E-6	1.45E-5	1.26E-6	-6.81E-3	9.70E-3
NHWD	kg	1.05E+1	1.49E+0	1.15E-1	1.21E+1	1.33E-1	3.03E-1	4.25E+0	1.82E+0	1.87E+1
RWD	kg	1.62E-3	1.56E-4	1.00E-5	1.79E-3	1.46E-5	2.52E-5	7.03E-6	-1.10E-4	1.73E-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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