

Environmental Profile

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

Ecochain v3.5.80



Product: 3061209 - Tigris PEXc/AI/PEIns10GY 20x2.25 L=50CRD
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	4.84E+1	9.55E-1	2.66E+0	5.20E+1	1.54E-1	4.17E+1	5.88E-1	-5.40E+0	8.90E+1
GWP-f	kg CO2 eq	6.48E+1	9.55E-1	2.16E+0	6.79E+1	1.54E-1	2.45E+1	5.87E-1	-7.27E+0	8.59E+1
GWP-b	kg CO2 eq	-1.65E+1	4.32E-4	5.00E-1	-1.60E+1	9.32E-5	1.71E+1	2.04E-3	1.85E+0	2.99E+0
GWP-luluc	kg CO2 eq	1.40E-1	3.53E-4	1.70E-3	1.42E-1	5.43E-5	1.47E-4	1.22E-5	2.15E-2	1.64E-1
ODP	kg CFC11 eq	2.96E-6	2.10E-7	1.24E-7	3.29E-6	3.54E-8	6.87E-8	1.51E-8	-1.58E-6	1.84E-6
AP	mol H+ eq	3.47E-1	5.82E-3	1.65E-2	3.69E-1	8.74E-4	4.48E-3	3.73E-4	3.85E-2	4.14E-1
EP-fw	kg P eq	2.08E-3	9.57E-6	9.59E-5	2.18E-3	1.26E-6	6.33E-6	5.65E-7	7.65E-5	2.27E-3
EP-m	kg N eq	5.97E-2	2.01E-3	2.06E-3	6.38E-2	3.13E-4	1.90E-3	2.42E-4	1.28E-3	6.75E-2
EP-T	mol N eq	6.68E-1	2.22E-2	2.28E-2	7.13E-1	3.45E-3	2.14E-2	1.51E-3	1.09E-2	7.50E-1
POCP	kg NMVOC eq	2.28E-1	6.32E-3	7.60E-3	2.42E-1	9.86E-4	5.87E-3	5.57E-4	4.12E-5	2.50E-1
ADP-mm	kg Sb eq	6.34E-4	2.40E-5	2.09E-4	8.67E-4	3.97E-6	7.19E-6	3.72E-7	-2.56E-3	-1.68E-3
ADP-f	MJ	1.29E+3	1.44E+1	1.83E+1	1.32E+3	2.36E+0	4.49E+0	1.13E+0	-2.04E+2	1.12E+3
WDP	m3 depriv.	2.67E+1	5.11E-2	6.33E-1	2.74E+1	7.23E-3	4.86E-2	5.51E-3	-2.95E+0	2.45E+1
PM	disease inc.	3.80E-6	8.51E-8	1.15E-7	4.00E-6	1.39E-8	4.83E-8	7.54E-9	3.64E-7	4.43E-6
IR	kBq U-235 eq	1.52E+0	6.02E-2	1.83E-2	1.60E+0	1.03E-2	1.83E-2	5.75E-3	-1.50E-1	1.48E+0
ETP-fw	CTUe	1.38E+3	1.28E+1	1.34E+2	1.52E+3	1.91E+0	1.19E+1	4.31E+2	3.67E+1	2.01E+3
HTP-c	CTUh	5.84E-8	4.18E-10	6.89E-9	6.58E-8	6.81E-11	3.61E-9	4.12E-11	7.50E-9	7.70E-8
HTP-nc	CTUh	1.07E-6	1.40E-8	1.72E-7	1.26E-6	2.28E-9	2.87E-8	8.91E-10	1.60E-7	1.45E-6
SQP	Pt	1.60E+3	1.24E+1	2.52E+1	1.63E+3	2.02E+0	2.84E+0	2.76E+0	-1.48E+3	1.65E+2
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	2.74E+2	9.27E-4	2.52E+2	5.26E+2	3.38E-2	1.65E-1	6.79E-2	-2.20E+2	3.06E+2
PERM	MJ	0	1.78E-1	0	1.78E-1	0	0	0	0	1.78E-1
PERT	MJ	2.74E+2	1.79E-1	2.52E+2	5.26E+2	3.38E-2	1.65E-1	6.79E-2	-2.20E+2	3.06E+2
PENRE	MJ	1.38E+3	1.46E-1	1.96E+1	1.40E+3	2.50E+0	4.78E+0	1.20E+0	-2.28E+2	1.18E+3
PENRM	MJ	0	1.51E+1	0	1.51E+1	0	0	0	0	1.51E+1
PENRT	MJ	1.38E+3	1.53E+1	1.96E+1	1.41E+3	2.50E+0	4.78E+0	1.20E+0	-2.28E+2	1.19E+3
PET	MJ	1.65E+3	1.54E+1	2.72E+2	1.94E+3	2.54E+0	4.95E+0	1.27E+0	-4.49E+2	1.50E+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	6.41E-1	1.74E-3	1.76E-2	6.60E-1	2.67E-4	5.39E-3	1.42E-3	-4.17E-2	6.26E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.30E-2	3.62E-5	7.34E-6	1.31E-2	6.03E-6	1.51E-5	1.35E-6	-5.47E-3	7.61E-3
NHWD	kg	9.73E+0	9.03E-1	1.30E-1	1.08E+1	1.46E-1	3.14E-1	4.68E+0	1.23E+0	1.71E+1
RWD	kg	1.57E-3	9.44E-5	1.07E-5	1.68E-3	1.60E-5	2.52E-5	7.51E-6	-1.69E-4	1.56E-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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