

Environmental Profile

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

Ecochain v3.5.80



Product: 3004379 - Tigris PEXc/Al/PE P.Ins9RD 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	4.23E+1	9.23E-1	8.97E-1	4.41E+1	1.09E-1	2.46E+1	3.97E-1	2.20E-1	6.95E+1
GWP-f	kg CO2 eq	4.95E+1	9.23E-1	5.67E-1	5.10E+1	1.09E-1	1.64E+1	3.95E-1	-1.55E+0	6.64E+1
GWP-b	kg CO2 eq	-7.34E+0	4.18E-4	3.30E-1	-7.01E+0	6.64E-5	8.19E+0	1.81E-3	1.75E+0	2.93E+0
GWP-luluc	kg CO2 eq	1.23E-1	3.42E-4	2.55E-4	1.23E-1	3.87E-5	1.06E-4	9.35E-6	2.45E-2	1.48E-1
ODP	kg CFC11 eq	2.21E-6	2.03E-7	3.32E-8	2.44E-6	2.52E-8	5.08E-8	1.09E-8	-9.19E-7	1.61E-6
AP	mol H+ eq	2.73E-1	5.63E-3	2.34E-3	2.81E-1	6.23E-4	3.14E-3	2.72E-4	4.68E-2	3.32E-1
EP-fw	kg P eq	1.65E-3	9.24E-6	1.55E-5	1.67E-3	9.00E-7	4.62E-6	4.31E-7	1.29E-4	1.81E-3
EP-m	kg N eq	4.56E-2	1.95E-3	4.56E-4	4.80E-2	2.23E-4	1.32E-3	1.71E-4	4.18E-3	5.39E-2
EP-T	mol N eq	5.07E-1	2.15E-2	4.26E-3	5.33E-1	2.46E-3	1.48E-2	1.10E-3	4.44E-2	5.96E-1
POCP	kg NMVOC eq	1.72E-1	6.11E-3	1.38E-3	1.80E-1	7.02E-4	4.10E-3	3.98E-4	1.20E-2	1.97E-1
ADP-mm	kg Sb eq	4.01E-4	2.32E-5	2.44E-5	4.48E-4	2.83E-6	5.58E-6	2.72E-7	-2.41E-3	-1.95E-3
ADP-f	MJ	9.24E+2	1.39E+1	4.20E+0	9.42E+2	1.68E+0	3.29E+0	8.24E-1	-1.03E+2	8.44E+2
WDP	m3 depriv.	2.03E+1	4.94E-2	1.15E-1	2.04E+1	5.15E-3	3.03E-2	4.22E-3	-2.34E+0	1.81E+1
PM	disease inc.	2.99E-6	8.22E-8	2.28E-8	3.10E-6	9.87E-9	3.53E-8	5.43E-9	5.01E-7	3.65E-6
IR	kBq U-235 eq	1.14E+0	5.82E-2	6.09E-3	1.21E+0	7.34E-3	1.34E-2	4.29E-3	-7.08E-2	1.16E+0
ETP-fw	CTUe	1.13E+3	1.24E+1	1.86E+1	1.16E+3	1.36E+0	9.12E+0	4.09E+2	7.23E+1	1.65E+3
HTP-c	CTUh	4.81E-8	4.04E-10	9.80E-10	4.95E-8	4.85E-11	2.56E-9	3.31E-11	1.03E-8	6.24E-8
HTP-nc	CTUh	8.98E-7	1.35E-8	2.32E-8	9.35E-7	1.62E-9	2.01E-8	7.06E-10	1.80E-7	1.14E-6
SQP	Pt	7.91E+2	1.20E+1	3.65E+0	8.06E+2	1.44E+0	2.06E+0	1.97E+0	-8.32E+2	-1.98E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.53E+2	9.14E-4	2.76E+1	1.80E+2	2.41E-2	1.19E-1	5.45E-2	-1.24E+2	5.66E+1
PERM	MJ	0	1.72E-1	0	1.72E-1	0	0	0	0	1.72E-1
PERT	MJ	1.53E+2	1.73E-1	2.76E+1	1.81E+2	2.41E-2	1.19E-1	5.45E-2	-1.24E+2	5.68E+1
PENRE	MJ	9.88E+2	1.44E-1	4.52E+0	9.93E+2	1.78E+0	3.50E+0	8.74E-1	-1.18E+2	8.81E+2
PENRM	MJ	0	1.46E+1	0	1.46E+1	0	0	0	0	1.46E+1
PENRT	MJ	9.88E+2	1.47E+1	4.52E+0	1.01E+3	1.78E+0	3.50E+0	8.74E-1	-1.18E+2	8.96E+2
PET	MJ	1.14E+3	1.49E+1	3.21E+1	1.19E+3	1.81E+0	3.62E+0	9.28E-1	-2.42E+2	9.53E+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	4.72E-1	1.68E-3	3.17E-3	4.77E-1	1.90E-4	3.57E-3	1.03E-3	-2.60E-2	4.56E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.22E-2	3.50E-5	4.71E-6	1.23E-2	4.29E-6	1.11E-5	9.83E-7	-5.07E-3	7.21E-3
NHWD	kg	7.60E+0	8.73E-1	7.74E-2	8.56E+0	1.04E-1	2.20E-1	3.34E+0	1.51E+0	1.37E+1
RWD	kg	1.18E-3	9.13E-5	6.89E-6	1.28E-3	1.14E-5	1.85E-5	5.49E-6	-7.18E-5	1.25E-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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