

Environmental Profile

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

Ecochain v3.5.80



Product: 3071219 - Tigris PEXc/Al/PE P.Ins9RD 25x2.5 L=25
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	3.02E+1	8.39E-1	7.08E-1	3.17E+1	7.57E-2	1.93E+1	2.66E-1	1.36E+0	5.27E+1
GWP-f	kg CO2 eq	3.75E+1	8.39E-1	4.45E-1	3.87E+1	7.57E-2	1.11E+1	2.65E-1	-3.94E-1	4.98E+1
GWP-b	kg CO2 eq	-7.38E+0	3.82E-4	2.62E-1	-7.12E+0	4.59E-5	8.18E+0	1.40E-3	1.74E+0	2.80E+0
GWP-luluc	kg CO2 eq	9.86E-2	3.09E-4	1.97E-4	9.91E-2	2.68E-5	9.35E-5	6.70E-6	1.63E-2	1.16E-1
ODP	kg CFC11 eq	1.75E-6	1.85E-7	2.60E-8	1.96E-6	1.74E-8	4.51E-8	7.63E-9	-6.51E-7	1.38E-6
AP	mol H+ eq	2.11E-1	5.04E-3	1.80E-3	2.18E-1	4.31E-4	2.50E-3	1.91E-4	3.50E-2	2.56E-1
EP-fw	kg P eq	1.25E-3	8.42E-6	1.20E-5	1.27E-3	6.23E-7	3.95E-6	3.09E-7	6.40E-5	1.34E-3
EP-m	kg N eq	3.57E-2	1.75E-3	3.56E-4	3.78E-2	1.54E-4	1.03E-3	1.17E-4	2.86E-3	4.20E-2
EP-T	mol N eq	3.96E-1	1.93E-2	3.31E-3	4.19E-1	1.70E-3	1.15E-2	7.72E-4	2.97E-2	4.62E-1
POCP	kg NMVOC eq	1.32E-1	5.51E-3	1.07E-3	1.38E-1	4.86E-4	3.22E-3	2.76E-4	7.88E-3	1.50E-1
ADP-mm	kg Sb eq	3.04E-4	2.11E-5	1.86E-5	3.44E-4	1.96E-6	5.27E-6	1.90E-7	-1.92E-3	-1.57E-3
ADP-f	MJ	6.66E+2	1.26E+1	3.29E+0	6.82E+2	1.16E+0	2.97E+0	5.77E-1	-6.82E+1	6.19E+2
WDP	m3 depriv.	1.43E+1	4.50E-2	8.92E-2	1.44E+1	3.56E-3	2.36E-2	2.95E-3	-2.38E+0	1.21E+1
PM	disease inc.	2.37E-6	7.49E-8	1.78E-8	2.46E-6	6.83E-9	2.96E-8	3.78E-9	3.40E-7	2.84E-6
IR	kBq U-235 eq	8.62E-1	5.29E-2	4.80E-3	9.19E-1	5.08E-3	1.23E-2	3.04E-3	-8.23E-2	8.57E-1
ETP-fw	CTUe	9.30E+2	1.12E+1	1.43E+1	9.56E+2	9.43E-1	7.38E+0	3.24E+2	2.64E+1	1.32E+3
HTP-c	CTUh	3.83E-8	3.67E-10	7.54E-10	3.94E-8	3.36E-11	1.83E-9	2.44E-11	7.51E-9	4.88E-8
HTP-nc	CTUh	7.06E-7	1.23E-8	1.78E-8	7.36E-7	1.12E-9	1.47E-8	5.16E-10	1.32E-7	8.85E-7
SQP	Pt	7.65E+2	1.09E+1	2.82E+0	7.79E+2	9.94E-1	1.88E+0	1.37E+0	-8.30E+2	-4.66E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.41E+2	5.73E-4	2.10E+1	1.62E+2	1.67E-2	1.02E-1	4.02E-2	-1.26E+2	3.60E+1
PERM	MJ	0	1.57E-1	0	1.57E-1	0	0	0	0	1.57E-1
PERT	MJ	1.41E+2	1.58E-1	2.10E+1	1.62E+2	1.67E-2	1.02E-1	4.02E-2	-1.26E+2	3.61E+1
PENRE	MJ	7.12E+2	9.03E-2	3.54E+0	7.16E+2	1.23E+0	3.15E+0	6.12E-1	-7.78E+1	6.43E+2
PENRM	MJ	0	1.33E+1	0	1.33E+1	0	0	0	0	1.33E+1
PENRT	MJ	7.12E+2	1.34E+1	3.54E+0	7.29E+2	1.23E+0	3.15E+0	6.12E-1	-7.78E+1	6.57E+2
PET	MJ	8.53E+2	1.36E+1	2.45E+1	8.91E+2	1.25E+0	3.26E+0	6.52E-1	-2.04E+2	6.93E+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	3.50E-1	1.53E-3	2.46E-3	3.54E-1	1.31E-4	2.65E-3	7.26E-4	-3.44E-2	3.23E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	9.70E-3	3.19E-5	3.75E-6	9.74E-3	2.97E-6	9.37E-6	6.88E-7	-4.01E-3	5.74E-3
NHWD	kg	6.06E+0	7.96E-1	6.15E-2	6.92E+0	7.20E-2	1.86E-1	2.31E+0	1.12E+0	1.06E+1
RWD	kg	9.01E-4	8.30E-5	5.48E-6	9.89E-4	7.90E-6	1.73E-5	3.85E-6	-8.15E-5	9.37E-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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