

Environmental Profile

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

Ecochain v3.5.80



Product: 3071224 - Tigris PEXc/Al/PE P.Ins13BL 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]; **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	3.16E+1	9.96E-1	1.10E+0	3.37E+1	9.32E-2	2.29E+1	3.53E-1	-2.19E+0	5.49E+1
GWP-f	kg CO2 eq	3.89E+1	9.95E-1	8.02E-1	4.07E+1	9.31E-2	1.48E+1	3.52E-1	-3.96E+0	5.19E+1
GWP-b	kg CO2 eq	-7.35E+0	4.53E-4	2.94E-1	-7.06E+0	5.65E-5	8.19E+0	1.28E-3	1.76E+0	2.89E+0
GWP-luluc	kg CO2 eq	8.98E-2	3.67E-4	5.27E-4	9.07E-2	3.29E-5	1.00E-4	7.55E-6	1.11E-2	1.02E-1
ODP	kg CFC11 eq	1.78E-6	2.19E-7	4.63E-8	2.04E-6	2.14E-8	4.80E-8	9.21E-9	-9.36E-7	1.19E-6
AP	mol H+ eq	2.07E-1	6.00E-3	5.05E-3	2.18E-1	5.30E-4	2.91E-3	2.27E-4	2.49E-2	2.47E-1
EP-fw	kg P eq	1.32E-3	9.99E-6	3.04E-5	1.36E-3	7.66E-7	4.31E-6	3.48E-7	1.81E-5	1.38E-3
EP-m	kg N eq	3.56E-2	2.08E-3	7.20E-4	3.84E-2	1.90E-4	1.22E-3	1.47E-4	1.05E-3	4.10E-2
EP-T	mol N eq	3.96E-1	2.30E-2	7.53E-3	4.26E-1	2.09E-3	1.37E-2	9.19E-4	9.63E-3	4.53E-1
POCP	kg NMVOC eq	1.37E-1	6.54E-3	2.49E-3	1.46E-1	5.98E-4	3.79E-3	3.38E-4	1.79E-3	1.53E-1
ADP-mm	kg Sb eq	3.47E-4	2.51E-5	6.11E-5	4.34E-4	2.41E-6	5.39E-6	2.27E-7	-1.63E-3	-1.18E-3
ADP-f	MJ	7.78E+2	1.50E+1	6.49E+0	8.00E+2	1.43E+0	3.11E+0	6.89E-1	-1.18E+2	6.87E+2
WDP	m3 depriv.	1.78E+1	5.34E-2	2.07E-1	1.80E+1	4.38E-3	3.22E-2	3.52E-3	-2.58E+0	1.55E+1
PM	disease inc.	2.26E-6	8.89E-8	3.87E-8	2.39E-6	8.40E-9	3.26E-8	4.58E-9	2.32E-7	2.67E-6
IR	kBq U-235 eq	9.71E-1	6.28E-2	7.51E-3	1.04E+0	6.24E-3	1.28E-2	3.51E-3	-1.09E-1	9.54E-1
ETP-fw	CTUe	8.79E+2	1.33E+1	4.09E+1	9.33E+2	1.16E+0	8.32E+0	2.74E+2	-8.10E+0	1.21E+3
HTP-c	CTUh	3.51E-8	4.35E-10	2.11E-9	3.76E-8	4.13E-11	2.32E-9	2.56E-11	5.54E-9	4.56E-8
HTP-nc	CTUh	6.54E-7	1.46E-8	5.21E-8	7.21E-7	1.38E-9	1.83E-8	5.50E-10	9.97E-8	8.41E-7
SQP	Pt	7.73E+2	1.29E+1	7.75E+0	7.94E+2	1.22E+0	1.91E+0	1.67E+0	-8.35E+2	-3.61E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.41E+2	7.26E-4	7.28E+1	2.14E+2	2.05E-2	1.12E-1	4.19E-2	-1.28E+2	8.65E+1
PERM	MJ	0	1.86E-1	0	1.86E-1	0	0	0	0	1.86E-1
PERT	MJ	1.41E+2	1.87E-1	7.28E+1	2.14E+2	2.05E-2	1.12E-1	4.19E-2	-1.28E+2	8.67E+1
PENRE	MJ	8.33E+2	1.14E-1	6.95E+0	8.40E+2	1.52E+0	3.31E+0	7.31E-1	-1.33E+2	7.13E+2
PENRM	MJ	0	1.58E+1	0	1.58E+1	0	0	0	0	1.58E+1
PENRT	MJ	8.33E+2	1.59E+1	6.95E+0	8.56E+2	1.52E+0	3.31E+0	7.31E-1	-1.33E+2	7.28E+2
PET	MJ	9.74E+2	1.61E+1	7.97E+1	1.07E+3	1.54E+0	3.43E+0	7.73E-1	-2.61E+2	8.15E+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	3.92E-1	1.82E-3	5.76E-3	3.99E-1	1.62E-4	3.37E-3	8.62E-4	-4.42E-2	3.60E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	8.25E-3	3.78E-5	4.25E-6	8.30E-3	3.65E-6	1.04E-5	8.24E-7	-3.46E-3	4.85E-3
NHWD	kg	5.75E+0	9.44E-1	7.18E-2	6.77E+0	8.86E-2	2.04E-1	2.84E+0	8.54E-1	1.08E+1
RWD	kg	9.97E-4	9.85E-5	6.21E-6	1.10E-3	9.72E-6	1.77E-5	4.57E-6	-1.15E-4	1.02E-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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