

Environmental Profile

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

Ecochain v3.5.80



Product: 3071225 - Tigris PEXc/Al/PE P.Ins13BL 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

A1 Raw material supply A2 Transport A3 Manufacturing

Construction process stage

A4 Transport gate to site
 A5 Assembly / Construction installation process

Use stage

B1 Use B2 Maintenance B3 Repair B4 Replacement B5 Refurbishment
 B6 Operational energy use B7 Operational water use

End-of-Life stage

C1 De-construction demolition C2 Transport C3 Waste processing
 C4 Disposal

Benefits and loads beyond the system boundaries

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	4.49E+1	9.74E-1	1.34E+0	4.73E+1	1.22E-1	2.68E+1	4.52E-1	-1.17E+0	7.35E+1
GWP-f	kg CO2 eq	5.22E+1	9.73E-1	9.89E-1	5.42E+1	1.22E-1	1.87E+1	4.51E-1	-2.93E+0	7.05E+1
GWP-b	kg CO2 eq	-7.37E+0	4.41E-4	3.50E-1	-7.02E+0	7.40E-5	8.18E+0	1.86E-3	1.73E+0	2.89E+0
GWP-luluc	kg CO2 eq	1.24E-1	3.60E-4	6.62E-4	1.25E-1	4.31E-5	1.09E-4	1.02E-5	2.46E-2	1.50E-1
ODP	kg CFC11 eq	2.29E-6	2.15E-7	5.71E-8	2.57E-6	2.81E-8	5.21E-8	1.21E-8	-1.06E-6	1.60E-6
AP	mol H+ eq	2.84E-1	5.93E-3	6.35E-3	2.96E-1	6.94E-4	3.38E-3	3.00E-4	4.59E-2	3.46E-1
EP-fw	kg P eq	1.71E-3	9.75E-6	3.81E-5	1.76E-3	1.00E-6	4.81E-6	4.68E-7	1.29E-4	1.90E-3
EP-m	kg N eq	4.74E-2	2.05E-3	8.93E-4	5.04E-2	2.48E-4	1.43E-3	1.91E-4	3.88E-3	5.61E-2
EP-T	mol N eq	5.28E-1	2.26E-2	9.39E-3	5.60E-1	2.74E-3	1.61E-2	1.22E-3	4.11E-2	6.21E-1
POCP	kg NMVOC eq	1.82E-1	6.44E-3	3.11E-3	1.91E-1	7.82E-4	4.43E-3	4.43E-4	1.09E-2	2.08E-1
ADP-mm	kg Sb eq	4.33E-4	2.45E-5	7.73E-5	5.35E-4	3.15E-6	5.61E-6	3.00E-7	-2.41E-3	-1.87E-3
ADP-f	MJ	1.01E+3	1.46E+1	8.03E+0	1.03E+3	1.87E+0	3.36E+0	9.11E-1	-1.26E+2	9.11E+2
WDP	m3 depriv.	2.26E+1	5.21E-2	2.59E-1	2.29E+1	5.74E-3	3.38E-2	4.63E-3	-2.36E+0	2.06E+1
PM	disease inc.	3.08E-6	8.67E-8	4.81E-8	3.22E-6	1.10E-8	3.71E-8	6.03E-9	5.00E-7	3.77E-6
IR	kBq U-235 eq	1.23E+0	6.14E-2	9.18E-3	1.30E+0	8.18E-3	1.35E-2	4.69E-3	-7.58E-2	1.25E+0
ETP-fw	CTUe	1.15E+3	1.30E+1	5.14E+1	1.21E+3	1.52E+0	9.61E+0	4.09E+2	7.20E+1	1.71E+3
HTP-c	CTUh	4.89E-8	4.26E-10	2.65E-9	5.20E-8	5.41E-11	2.83E-9	3.53E-11	1.02E-8	6.51E-8
HTP-nc	CTUh	9.17E-7	1.42E-8	6.56E-8	9.97E-7	1.81E-9	2.22E-8	7.54E-10	1.79E-7	1.20E-6
SQP	Pt	7.99E+2	1.26E+1	9.74E+0	8.22E+2	1.60E+0	2.08E+0	2.19E+0	-8.29E+2	-1.42E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.55E+2	9.14E-4	9.21E+1	2.47E+2	2.68E-2	1.23E-1	5.79E-2	-1.23E+2	1.24E+2
PERM	MJ	0	1.82E-1	0	1.82E-1	0	0	0	0	1.82E-1
PERT	MJ	1.55E+2	1.83E-1	9.21E+1	2.48E+2	2.68E-2	1.23E-1	5.79E-2	-1.23E+2	1.24E+2
PENRE	MJ	1.08E+3	1.44E-1	8.61E+0	1.09E+3	1.99E+0	3.58E+0	9.66E-1	-1.43E+2	9.51E+2
PENRM	MJ	0	1.54E+1	0	1.54E+1	0	0	0	0	1.54E+1
PENRT	MJ	1.08E+3	1.56E+1	8.61E+0	1.10E+3	1.99E+0	3.58E+0	9.66E-1	-1.43E+2	9.67E+2
PET	MJ	1.23E+3	1.57E+1	1.01E+2	1.35E+3	2.01E+0	3.70E+0	1.02E+0	-2.66E+2	1.09E+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	5.10E-1	1.77E-3	7.20E-3	5.19E-1	2.12E-4	3.97E-3	1.14E-3	-2.66E-2	4.98E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.22E-2	3.69E-5	5.06E-6	1.23E-2	4.78E-6	1.16E-5	1.09E-6	-5.10E-3	7.20E-3
NHWD	kg	7.78E+0	9.21E-1	8.58E-2	8.79E+0	1.16E-1	2.28E-1	3.72E+0	1.50E+0	1.43E+1
RWD	kg	1.26E-3	9.63E-5	7.40E-6	1.37E-3	1.27E-5	1.86E-5	6.05E-6	-7.94E-5	1.32E-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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