

Environmental Profile

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

Ecochain v3.5.80



Product: 3070932 - Tigris PEXc/Al/PE P.Ins13RD 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	3.13E+1	8.61E-1	8.12E-1	3.30E+1	8.08E-2	2.02E+1	2.88E-1	7.95E-1	5.43E+1
GWP-f	kg CO2 eq	3.86E+1	8.60E-1	5.40E-1	4.00E+1	8.07E-2	1.20E+1	2.87E-1	-9.74E-1	5.14E+1
GWP-b	kg CO2 eq	-7.40E+0	3.92E-4	2.72E-1	-7.12E+0	4.90E-5	8.19E+0	1.42E-3	1.75E+0	2.82E+0
GWP-luluc	kg CO2 eq	9.92E-2	3.17E-4	2.83E-4	9.98E-2	2.86E-5	9.54E-5	7.02E-6	1.62E-2	1.16E-1
ODP	kg CFC11 eq	1.79E-6	1.90E-7	3.14E-8	2.01E-6	1.86E-8	4.60E-8	8.11E-9	-7.12E-7	1.37E-6
AP	mol H+ eq	2.15E-1	5.17E-3	2.65E-3	2.23E-1	4.60E-4	2.61E-3	2.02E-4	3.45E-2	2.61E-1
EP-fw	kg P eq	1.28E-3	8.64E-6	1.68E-5	1.30E-3	6.64E-7	4.05E-6	3.24E-7	6.22E-5	1.37E-3
EP-m	kg N eq	3.65E-2	1.80E-3	4.52E-4	3.88E-2	1.65E-4	1.08E-3	1.25E-4	2.71E-3	4.29E-2
EP-T	mol N eq	4.05E-1	1.98E-2	4.42E-3	4.29E-1	1.81E-3	1.21E-2	8.18E-4	2.80E-2	4.72E-1
POCP	kg NMVOC eq	1.36E-1	5.65E-3	1.44E-3	1.43E-1	5.18E-4	3.37E-3	2.94E-4	7.35E-3	1.54E-1
ADP-mm	kg Sb eq	3.18E-4	2.17E-5	2.97E-5	3.70E-4	2.09E-6	5.32E-6	2.02E-7	-1.92E-3	-1.54E-3
ADP-f	MJ	7.01E+2	1.30E+1	4.13E+0	7.19E+2	1.24E+0	3.02E+0	6.12E-1	-7.79E+1	6.46E+2
WDP	m3 depriv.	1.53E+1	4.62E-2	1.20E-1	1.54E+1	3.80E-3	2.52E-2	3.12E-3	-2.42E+0	1.30E+1
PM	disease inc.	2.41E-6	7.69E-8	2.33E-8	2.51E-6	7.29E-9	3.05E-8	4.02E-9	3.37E-7	2.89E-6
IR	kBq U-235 eq	8.98E-1	5.43E-2	5.53E-3	9.58E-1	5.42E-3	1.25E-2	3.21E-3	-8.56E-2	8.94E-1
ETP-fw	CTUe	9.41E+2	1.15E+1	2.13E+1	9.74E+2	1.01E+0	7.62E+0	3.24E+2	2.47E+1	1.33E+3
HTP-c	CTUh	3.86E-8	3.76E-10	1.11E-9	4.01E-8	3.58E-11	1.95E-9	2.52E-11	7.47E-9	4.96E-8
HTP-nc	CTUh	7.14E-7	1.26E-8	2.68E-8	7.54E-7	1.20E-9	1.56E-8	5.36E-10	1.32E-7	9.03E-7
SQP	Pt	7.70E+2	1.12E+1	4.11E+0	7.85E+2	1.06E+0	1.90E+0	1.46E+0	-8.32E+2	-4.31E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.42E+2	5.73E-4	3.45E+1	1.76E+2	1.78E-2	1.05E-1	4.16E-2	-1.26E+2	5.02E+1
PERM	MJ	0	1.61E-1	0	1.61E-1	0	0	0	0	1.61E-1
PERT	MJ	1.42E+2	1.62E-1	3.45E+1	1.76E+2	1.78E-2	1.05E-1	4.16E-2	-1.26E+2	5.04E+1
PENRE	MJ	7.50E+2	9.03E-2	4.44E+0	7.55E+2	1.32E+0	3.21E+0	6.49E-1	-8.85E+1	6.71E+2
PENRM	MJ	0	1.37E+1	0	1.37E+1	0	0	0	0	1.37E+1
PENRT	MJ	7.50E+2	1.38E+1	4.44E+0	7.68E+2	1.32E+0	3.21E+0	6.49E-1	-8.85E+1	6.85E+2
PET	MJ	8.92E+2	1.39E+1	3.89E+1	9.45E+2	1.33E+0	3.31E+0	6.91E-1	-2.15E+2	7.35E+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	3.66E-1	1.57E-3	3.33E-3	3.71E-1	1.40E-4	2.82E-3	7.69E-4	-3.54E-2	3.39E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	9.71E-3	3.27E-5	3.89E-6	9.75E-3	3.17E-6	9.65E-6	7.30E-7	-4.02E-3	5.74E-3
NHWD	kg	6.14E+0	8.17E-1	6.44E-2	7.02E+0	7.68E-2	1.91E-1	2.46E+0	1.11E+0	1.09E+1
RWD	kg	9.34E-4	8.52E-5	5.69E-6	1.02E-3	8.43E-6	1.75E-5	4.08E-6	-8.59E-5	9.69E-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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