

Environmental Profile

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

Ecochain v3.5.64



Product: 3027829 - Tigris K1 T- 50
 Unit: 1 Piece
 Manufacturer: Wavin - DE - Twist - Handmade

LCA standard: EN15804+A2 (2019)
 Standard database: Worldwide - Ecoinvent v 3.6 Cut-Off
 Externally verified: Yes
 Issue date: 29-11-2022
 End of validity: 29-11-2027
 Verifier: Martijn van Hövell - SGS Search



Wavin Tigris K1 is proven and perfected to deliver high performance and significant cost savings in a wide range of commercial plumbing and heating projects. Its patented design has been relentlessly engineered to optimise all the benefits of a composite metal-plastic press-fit system and deliver the optimum solution for sanitary, potable water and heating applications, including re-circulating systems.

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 - DE - Twist - Handmade (2020). (☑ = 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	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 Climate Change [kg CO2 eq]; **GWP-f** = EF Climate change - Fossil [kg CO2 eq]; **GWP-b** = EF Climate Change - Biogenic [kg CO2 eq]; **GWP-luluc** = EF 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]

Statement of Confidentiality

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Results

Environmental impact	Unit	A1	A2	A3	A1-A3	Total
GWP-total	kg CO2 eq	2.76E+0	1.05E-2	3.97E-3	2.77E+0	2.77E+0
GWP-f	kg CO2 eq	2.92E+0	1.05E-2	2.92E-3	2.93E+0	2.93E+0
GWP-b	kg CO2 eq	-1.74E-1	6.39E-6	1.04E-3	-1.73E-1	-1.73E-1
GWP-luluc	kg CO2 eq	1.23E-2	3.72E-6	4.51E-6	1.23E-2	1.23E-2
ODP	kg CFC11 eq	4.64E-7	2.42E-9	4.46E-10	4.67E-7	4.67E-7
AP	mol H+ eq	1.67E-2	5.99E-5	2.42E-5	1.68E-2	1.68E-2
EP-fw	kg P eq	1.20E-4	8.66E-8	1.04E-7	1.20E-4	1.20E-4
EP-m	kg N eq	2.83E-3	2.14E-5	1.15E-5	2.86E-3	2.86E-3
EP-T	mol N eq	3.19E-2	2.36E-4	1.08E-4	3.23E-2	3.23E-2
POCP	kg NMVOC eq	1.26E-2	6.76E-5	3.02E-5	1.27E-2	1.27E-2
ADP-mm	kg Sb eq	8.74E-5	2.72E-7	2.16E-8	8.77E-5	8.77E-5
ADP-f	MJ	4.47E+1	1.62E-1	3.00E-2	4.49E+1	4.49E+1
WDP	m3 depriv.	1.89E+0	4.96E-4	3.92E-2	1.93E+0	1.93E+0
PM	disease inc.	1.81E-7	9.50E-10	6.33E-10	1.83E-7	1.83E-7
IR	kBq U-235 eq	1.06E-1	7.06E-4	1.46E-4	1.07E-1	1.07E-1
ETP-fw	CTUe	2.62E+2	1.31E-1	7.00E-2	2.62E+2	2.62E+2
HTP-c	CTUh	2.94E-8	4.67E-12	3.03E-12	2.94E-8	2.94E-8
HTP-nc	CTUh	9.69E-8	1.56E-10	5.18E-11	9.71E-8	9.71E-8
SQP	Pt	2.97E+1	1.38E-1	1.36E-2	2.98E+1	2.98E+1
Resource use	Unit	A1	A2	A3	A1-A3	Total
PERE	MJ	1.27E+1	2.32E-3	2.71E-3	1.27E+1	1.27E+1
PERM	MJ	0	0	0	0	0
PERT	MJ	1.27E+1	2.32E-3	2.71E-3	1.27E+1	1.27E+1
PENRE	MJ	4.78E+1	1.71E-1	3.15E-2	4.80E+1	4.80E+1
PENRM	MJ	0	0	0	0	0
PENRT	MJ	4.78E+1	1.71E-1	3.15E-2	4.80E+1	4.80E+1
PET	MJ	6.05E+1	1.74E-1	3.42E-2	6.08E+1	6.08E+1
SM	kg	0	0	0	0	0
RSF	MJ	0	0	0	0	0
NRSF	MJ	0	0	0	0	0
FW	m3	4.99E-2	1.83E-5	9.16E-4	5.08E-2	5.08E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	Total
HWD	kg	5.74E-5	4.13E-7	9.07E-8	5.79E-5	5.79E-5
NHWD	kg	2.13E+0	1.00E-2	7.53E-4	2.14E+0	2.14E+0
RWD	kg	1.00E-4	1.10E-6	2.23E-7	1.02E-4	1.02E-4
CRU	kg	0	0	0	0	0
MFR	kg	0	0	0	0	0
MER	kg	0	0	0	0	0
EE	MJ	0	0	0	0	0
EET	MJ	0	0	0	0	0
EEE	MJ	0	0	0	0	0



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