

Environmental Profile

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

Ecochain v3.5.64



Product: 3004454 - K1 Manifold connector male 3/4"
Unit: 1 Piece
Manufacturer: Wavin - DE - Twist - Handmade

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.

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



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	2.34E-1	1.57E-3	5.48E-4	2.36E-1	2.36E-1
GWP-f	kg CO2 eq	2.81E-1	1.57E-3	4.03E-4	2.83E-1	2.83E-1
GWP-b	kg CO2 eq	-4.81E-2	9.52E-7	1.44E-4	-4.80E-2	-4.80E-2
GWP-luluc	kg CO2 eq	1.80E-3	5.55E-7	6.22E-7	1.80E-3	1.80E-3
ODP	kg CFC11 eq	6.08E-8	3.61E-10	6.16E-11	6.12E-8	6.12E-8
AP	mol H+ eq	1.49E-3	8.93E-6	3.35E-6	1.50E-3	1.50E-3
EP-fw	kg P eq	1.10E-5	1.29E-8	1.44E-8	1.11E-5	1.11E-5
EP-m	kg N eq	2.63E-4	3.19E-6	1.59E-6	2.68E-4	2.68E-4
EP-T	mol N eq	2.93E-3	3.52E-5	1.50E-5	2.98E-3	2.98E-3
POCP	kg NMVOC eq	1.35E-3	1.01E-5	4.17E-6	1.36E-3	1.36E-3
ADP-mm	kg Sb eq	7.48E-6	4.05E-8	2.98E-9	7.52E-6	7.52E-6
ADP-f	MJ	5.43E+0	2.41E-2	4.14E-3	5.46E+0	5.46E+0
WDP	m3 depriv.	2.76E-1	7.38E-5	5.42E-3	2.82E-1	2.82E-1
PM	disease inc.	1.36E-8	1.41E-10	8.74E-11	1.38E-8	1.38E-8
IR	kBq U-235 eq	9.24E-3	1.05E-4	2.01E-5	9.36E-3	9.36E-3
ETP-fw	CTUe	3.49E+1	1.95E-2	9.67E-3	3.50E+1	3.50E+1
HTP-c	CTUh	1.61E-9	6.95E-13	4.18E-13	1.62E-9	1.62E-9
HTP-nc	CTUh	6.72E-9	2.33E-11	7.15E-12	6.75E-9	6.75E-9
SQP	Pt	5.29E+0	2.06E-2	1.88E-3	5.31E+0	5.31E+0
Resource use	Unit	A1	A2	A3	A1-A3	Total
PERE	MJ	1.69E+0	3.45E-4	3.74E-4	1.69E+0	1.69E+0
PERM	MJ	0	0	0	0	0
PERT	MJ	1.69E+0	3.45E-4	3.74E-4	1.69E+0	1.69E+0
PENRE	MJ	5.82E+0	2.55E-2	4.35E-3	5.85E+0	5.85E+0
PENRM	MJ	0	0	0	0	0
PENRT	MJ	5.82E+0	2.55E-2	4.35E-3	5.85E+0	5.85E+0
PET	MJ	7.51E+0	2.59E-2	4.72E-3	7.54E+0	7.54E+0
SM	kg	0	0	0	0	0
RSF	MJ	0	0	0	0	0
NRSF	MJ	0	0	0	0	0
FW	m3	6.87E-3	2.72E-6	1.26E-4	7.00E-3	7.00E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	Total
HWD	kg	4.82E-6	6.15E-8	1.25E-8	4.89E-6	4.89E-6
NHWD	kg	1.21E-1	1.49E-3	1.04E-4	1.23E-1	1.23E-1
RWD	kg	8.85E-6	1.64E-7	3.08E-8	9.05E-6	9.05E-6
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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