

Environmental Profile

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

Ecochain v3.5.64



Product: 3004452 - K1 Manifold 3-way
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	7.22E-1	4.21E-3	1.92E-3	7.28E-1	7.28E-1
GWP-f	kg CO2 eq	8.58E-1	4.21E-3	1.41E-3	8.63E-1	8.63E-1
GWP-b	kg CO2 eq	-1.42E-1	2.56E-6	5.05E-4	-1.42E-1	-1.42E-1
GWP-luluc	kg CO2 eq	6.18E-3	1.49E-6	2.18E-6	6.18E-3	6.18E-3
ODP	kg CFC11 eq	2.04E-7	9.70E-10	2.16E-10	2.05E-7	2.05E-7
AP	mol H+ eq	4.64E-3	2.40E-5	1.17E-5	4.68E-3	4.68E-3
EP-fw	kg P eq	3.41E-5	3.46E-8	5.03E-8	3.42E-5	3.42E-5
EP-m	kg N eq	8.14E-4	8.58E-6	5.57E-6	8.28E-4	8.28E-4
EP-T	mol N eq	9.05E-3	9.45E-5	5.23E-5	9.20E-3	9.20E-3
POCP	kg NMVOC eq	4.23E-3	2.70E-5	1.46E-5	4.27E-3	4.27E-3
ADP-mm	kg Sb eq	1.99E-5	1.09E-7	1.04E-8	2.00E-5	2.00E-5
ADP-f	MJ	1.59E+1	6.46E-2	1.45E-2	1.60E+1	1.60E+1
WDP	m3 depriv.	9.05E-1	1.98E-4	1.90E-2	9.24E-1	9.24E-1
PM	disease inc.	4.21E-8	3.80E-10	3.06E-10	4.28E-8	4.28E-8
IR	kBq U-235 eq	2.72E-2	2.82E-4	7.05E-5	2.75E-2	2.75E-2
ETP-fw	CTUe	1.20E+2	5.25E-2	3.38E-2	1.20E+2	1.20E+2
HTP-c	CTUh	5.59E-9	1.87E-12	1.46E-12	5.59E-9	5.59E-9
HTP-nc	CTUh	2.22E-8	6.25E-11	2.50E-11	2.23E-8	2.23E-8
SQP	Pt	1.59E+1	5.53E-2	6.57E-3	1.59E+1	1.59E+1
Resource use	Unit	A1	A2	A3	A1-A3	Total
PERE	MJ	5.46E+0	9.27E-4	1.31E-3	5.46E+0	5.46E+0
PERM	MJ	0	0	0	0	0
PERT	MJ	5.46E+0	9.27E-4	1.31E-3	5.46E+0	5.46E+0
PENRE	MJ	1.71E+1	6.86E-2	1.52E-2	1.72E+1	1.72E+1
PENRM	MJ	0	0	0	0	0
PENRT	MJ	1.71E+1	6.86E-2	1.52E-2	1.72E+1	1.72E+1
PET	MJ	2.26E+1	6.95E-2	1.65E-2	2.26E+1	2.26E+1
SM	kg	0	0	0	0	0
RSF	MJ	0	0	0	0	0
NRSF	MJ	0	0	0	0	0
FW	m3	2.25E-2	7.31E-6	4.43E-4	2.30E-2	2.30E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	Total
HWD	kg	1.48E-5	1.65E-7	4.38E-8	1.50E-5	1.50E-5
NHWD	kg	4.13E-1	4.00E-3	3.64E-4	4.17E-1	4.17E-1
RWD	kg	2.59E-5	4.39E-7	1.08E-7	2.64E-5	2.64E-5
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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