

Environmental Profile

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

Ecochain v3.5.71



Product: 4064280 - Tigris M5 DRL Hep20 Adaptor 20x22
 Unit: 1 piece
 Manufacturer: Wavin - UK - Doncaster - Verified

LCA standard: EN15804+A2 (2019)
 Standard database: Worldwide - Ecoinvent v 3.6 Cut-Off
 Externally verified: Yes
 Issue date: 09-02-2023
 End of validity: 09-02-2028
 Verifier: Martijn van Hövell - SGS Search



Suitable for various professional plumbing jobs. Hep20 is packed with unique features that make push-fit plumbing fitting easier quicker and more secure for installers. No additional equipment or tools required when installing or demounting fittings compared to others where a solder or glue is required. Just push the pipework into the fitting to create a watertight seal. A wide range of plastic fittings, plumbing pipes and tubes are available. It is the only system with joint recognition and se

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 - UK - Doncaster - Verified (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	☑	☑	☑	☑

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]

Statement of Confidentiality

This document and supporting material contain confidential and proprietary business information of Wavin - UK - Doncaster - Verified. These materials may be printed or (photo) copied or otherwise used only with the written consent of Wavin - UK - Doncaster - Verified.

Results

Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	2.09E-1	4.88E-3	1.53E-3	2.15E-1	3.16E-3	2.65E-2	3.04E-4	-2.05E-1	4.05E-2
GWP-f	kg CO2 eq	2.08E-1	4.87E-3	1.53E-3	2.15E-1	3.16E-3	2.48E-2	3.04E-4	-2.06E-1	3.67E-2
GWP-b	kg CO2 eq	3.16E-4	2.88E-6	-1.61E-6	3.17E-4	1.92E-6	1.72E-3	3.56E-7	1.99E-3	4.02E-3
GWP-luluc	kg CO2 eq	3.71E-5	1.75E-6	1.93E-6	4.08E-5	1.12E-6	5.26E-6	1.94E-8	-2.36E-4	-1.89E-4
ODP	kg CFC11 eq	2.92E-9	1.12E-9	7.28E-11	4.12E-9	7.28E-10	8.10E-10	2.83E-11	-9.38E-9	-3.69E-9
AP	mol H+ eq	8.93E-4	3.02E-5	9.71E-6	9.33E-4	1.80E-5	4.26E-5	6.65E-7	-3.35E-3	-2.35E-3
EP-fw	kg P eq	3.03E-6	3.97E-8	2.33E-8	3.09E-6	2.60E-8	2.18E-7	8.10E-10	-2.68E-5	-2.35E-5
EP-m	kg N eq	1.84E-4	1.05E-5	1.39E-6	1.96E-4	6.44E-6	1.13E-5	4.93E-7	-4.18E-4	-2.03E-4
EP-T	mol N eq	1.87E-3	1.16E-4	1.63E-5	2.00E-3	7.10E-5	1.27E-4	2.55E-6	-5.58E-3	-3.38E-3
POCP	kg NMVOC eq	6.32E-4	3.28E-5	5.00E-6	6.70E-4	2.03E-5	3.71E-5	7.92E-7	-1.36E-3	-6.35E-4
ADP-mm	kg Sb eq	5.18E-6	1.24E-7	5.63E-8	5.37E-6	8.17E-8	1.76E-7	6.43E-10	-1.19E-3	-1.18E-3
ADP-f	MJ	2.54E+0	7.45E-2	1.72E-2	2.63E+0	4.85E-2	8.54E-2	1.96E-3	-2.65E+0	1.11E-1
WDP	m3 depriv.	7.10E-2	2.27E-4	3.83E-4	7.16E-2	1.49E-4	1.20E-3	6.77E-5	-1.32E-1	-5.92E-2
PM	disease inc.	8.05E-9	4.34E-10	7.11E-11	8.55E-9	2.85E-10	6.23E-10	1.30E-11	-1.44E-8	-4.92E-9
IR	kBq U-235 eq	1.14E-3	3.26E-4	2.59E-5	1.49E-3	2.12E-4	3.13E-4	8.42E-6	-8.78E-3	-6.76E-3
ETP-fw	CTUe	1.06E+0	6.03E-2	5.92E-2	1.18E+0	3.94E-2	2.10E-1	2.01E-3	-5.61E+1	-5.47E+1
HTP-c	CTUh	4.79E-11	2.17E-12	2.32E-12	5.23E-11	1.40E-12	1.14E-11	3.52E-14	-1.26E-9	-1.19E-9
HTP-nc	CTUh	7.88E-10	7.16E-11	5.29E-11	9.12E-10	4.69E-11	2.32E-10	1.10E-12	-7.99E-8	-7.87E-8
SQP	Pt	3.54E-1	6.29E-2	7.29E-3	4.24E-1	4.15E-2	9.73E-2	4.34E-3	-1.87E+0	-1.30E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	6.60E-2	1.06E-3	1.43E-1	2.10E-1	6.96E-4	6.65E-3	3.51E-5	-4.73E-1	-2.56E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	6.60E-2	1.06E-3	1.43E-1	2.10E-1	6.96E-4	6.65E-3	3.51E-5	-4.73E-1	-2.56E-1
PENRE	MJ	2.74E+0	7.91E-2	1.82E-2	2.84E+0	5.15E-2	9.09E-2	2.08E-3	-2.85E+0	1.32E-1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	2.74E+0	7.91E-2	1.82E-2	2.84E+0	5.15E-2	9.09E-2	2.08E-3	-2.85E+0	1.32E-1
PET	MJ	2.81E+0	8.02E-2	1.61E-1	3.05E+0	5.22E-2	9.75E-2	2.12E-3	-3.32E+0	-1.24E-1
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	1.70E-3	8.36E-6	1.33E-5	1.72E-3	5.49E-6	4.68E-5	2.19E-6	-3.50E-3	-1.72E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	6.03E-7	1.89E-7	4.57E-10	7.92E-7	1.24E-7	1.84E-7	2.78E-9	-1.50E-4	-1.48E-4
NHWD	kg	1.05E-2	4.55E-3	5.09E-6	1.51E-2	3.01E-3	3.86E-3	1.21E-2	-5.27E-2	-1.87E-2
RWD	kg	1.34E-6	5.07E-7	3.45E-10	1.84E-6	3.30E-7	3.92E-7	1.29E-8	-7.06E-6	-4.49E-6
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



Ecochain Technologies BV
H.J.E. Wenckebachweg 123, 1096 AM Amsterdam, The Netherlands
<https://www.ecochain.com>
+31 20 3035 777