

Environmental Profile

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

Ecochain v3.5.71



Product: 3031483 - Hep20 Brass Tee 15x1/2 PF/TF
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					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]

Statement of Confidentiality

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Results

Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	9.52E-1	6.27E-3	8.56E-2	1.04E+0	4.93E-3	2.91E-2	3.72E-4	-2.81E-1	7.97E-1
GWP-f	kg CO2 eq	9.50E-1	6.26E-3	7.87E-2	1.03E+0	4.92E-3	2.93E-2	3.72E-4	-2.77E-1	7.93E-1
GWP-b	kg CO2 eq	5.15E-4	3.72E-6	6.86E-3	7.38E-3	2.99E-6	-1.80E-4	4.58E-7	-3.56E-3	3.64E-3
GWP-luluc	kg CO2 eq	1.16E-3	2.24E-6	2.07E-5	1.19E-3	1.74E-6	6.64E-6	2.96E-8	-3.42E-4	8.52E-4
ODP	kg CFC11 eq	5.16E-8	1.44E-9	9.66E-9	6.27E-8	1.13E-9	9.73E-10	4.34E-11	-1.45E-8	5.04E-8
AP	mol H+ eq	6.68E-2	3.82E-5	1.50E-4	6.70E-2	2.80E-5	5.64E-5	1.01E-6	-5.30E-3	6.18E-2
EP-fw	kg P eq	5.32E-4	5.11E-8	4.71E-7	5.32E-4	4.05E-8	2.99E-7	1.22E-9	-4.32E-5	4.89E-4
EP-m	kg N eq	3.52E-3	1.33E-5	3.64E-5	3.57E-3	1.00E-5	1.42E-5	6.48E-7	-6.36E-4	2.96E-3
EP-T	mol N eq	5.11E-2	1.47E-4	3.33E-4	5.15E-2	1.11E-4	1.61E-4	3.88E-6	-8.68E-3	4.31E-2
POCP	kg NMVOC eq	1.37E-2	4.18E-5	1.10E-4	1.38E-2	3.16E-5	4.64E-5	1.18E-6	-2.07E-3	1.18E-2
ADP-mm	kg Sb eq	4.23E-3	1.60E-7	5.36E-7	4.23E-3	1.27E-7	2.36E-7	9.79E-10	-1.97E-3	2.26E-3
ADP-f	MJ	1.11E+1	9.58E-2	1.14E+0	1.23E+1	7.56E-2	1.03E-1	2.99E-3	-3.61E+0	8.92E+0
WDP	m3 depriv.	6.96E-1	2.92E-4	9.77E-3	7.06E-1	2.32E-4	1.27E-3	1.11E-4	-1.92E-1	5.15E-1
PM	disease inc.	1.54E-7	5.59E-10	1.10E-9	1.56E-7	4.44E-10	8.12E-10	1.98E-11	-2.12E-8	1.36E-7
IR	kBq U-235 eq	3.59E-2	4.19E-4	8.94E-4	3.72E-2	3.30E-4	3.92E-4	1.27E-5	-1.41E-2	2.39E-2
ETP-fw	CTUe	6.54E+2	7.76E-2	7.15E-1	6.55E+2	6.14E-2	2.89E-1	2.78E-3	-9.24E+1	5.63E+2
HTP-c	CTUh	9.52E-9	2.78E-12	3.06E-11	9.56E-9	2.18E-12	1.30E-11	5.14E-14	-2.07E-9	7.50E-9
HTP-nc	CTUh	7.65E-7	9.22E-11	6.17E-10	7.66E-7	7.32E-11	3.14E-10	1.60E-12	-1.32E-7	6.34E-7
SQP	Pt	1.02E+1	8.11E-2	1.07E-1	1.04E+1	6.47E-2	1.32E-1	6.52E-3	-1.85E+0	8.78E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	2.14E+0	1.37E-3	1.21E+0	3.35E+0	1.08E-3	9.19E-3	4.60E-5	-5.54E-1	2.81E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	2.14E+0	1.37E-3	1.21E+0	3.35E+0	1.08E-3	9.19E-3	4.60E-5	-5.54E-1	2.81E+0
PENRE	MJ	1.19E+1	1.02E-1	1.25E+0	1.32E+1	8.02E-2	1.09E-1	3.17E-3	-3.86E+0	9.55E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.19E+1	1.02E-1	1.25E+0	1.32E+1	8.02E-2	1.09E-1	3.17E-3	-3.86E+0	9.55E+0
PET	MJ	1.40E+1	1.03E-1	2.46E+0	1.66E+1	8.13E-2	1.19E-1	3.22E-3	-4.42E+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	1.83E-2	1.08E-5	2.80E-4	1.86E-2	8.55E-6	5.71E-5	3.29E-6	-5.14E-3	1.35E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	5.27E-4	2.43E-7	1.32E-6	5.29E-4	1.93E-7	2.34E-7	4.29E-9	-2.48E-4	2.81E-4
NHWD	kg	2.64E-1	5.87E-3	6.14E-3	2.76E-1	4.68E-3	4.42E-3	1.89E-2	-8.63E-2	2.17E-1
RWD	kg	3.08E-5	6.52E-7	9.99E-7	3.24E-5	5.14E-7	4.85E-7	1.96E-8	-1.13E-5	2.22E-5
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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