

Environmental Profile

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

Ecochain v3.5.71



Product: 3030666 - Hep20 Brass Adapter 22x3/4 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	6.62E-1	4.86E-3	5.65E-2	7.24E-1	3.27E-3	2.18E-2	3.06E-4	-2.09E-1	5.40E-1
GWP-f	kg CO2 eq	6.61E-1	4.85E-3	5.20E-2	7.18E-1	3.26E-3	2.20E-2	3.06E-4	-2.07E-1	5.37E-1
GWP-b	kg CO2 eq	4.86E-4	2.87E-6	4.57E-3	5.06E-3	1.98E-6	-1.20E-4	3.60E-7	-2.30E-3	2.65E-3
GWP-luluc	kg CO2 eq	7.31E-4	1.74E-6	1.32E-5	7.46E-4	1.16E-6	5.21E-6	2.00E-8	-2.15E-4	5.37E-4
ODP	kg CFC11 eq	3.24E-8	1.12E-9	6.42E-9	3.99E-8	7.52E-10	7.58E-10	2.92E-11	-9.23E-9	3.22E-8
AP	mol H+ eq	4.22E-2	3.01E-5	9.69E-5	4.23E-2	1.86E-5	4.11E-5	6.85E-7	-3.45E-3	3.90E-2
EP-fw	kg P eq	3.35E-4	3.95E-8	3.06E-7	3.35E-4	2.69E-8	2.18E-7	8.33E-10	-2.75E-5	3.08E-4
EP-m	kg N eq	2.27E-3	1.04E-5	2.38E-5	2.30E-3	6.65E-6	1.06E-5	4.99E-7	-4.26E-4	1.89E-3
EP-T	mol N eq	3.26E-2	1.15E-4	2.17E-4	3.30E-2	7.33E-5	1.19E-4	2.63E-6	-5.72E-3	2.74E-2
POCP	kg NMVOC eq	8.79E-3	3.27E-5	7.16E-5	8.89E-3	2.10E-5	3.48E-5	8.14E-7	-1.39E-3	7.55E-3
ADP-mm	kg Sb eq	2.66E-3	1.24E-7	3.39E-7	2.66E-3	8.45E-8	1.70E-7	6.63E-10	-1.24E-3	1.42E-3
ADP-f	MJ	7.69E+0	7.42E-2	7.53E-1	8.52E+0	5.01E-2	8.22E-2	2.02E-3	-2.64E+0	6.01E+0
WDP	m3 depriv.	4.57E-1	2.26E-4	6.39E-3	4.64E-1	1.54E-4	1.16E-3	7.03E-5	-1.30E-1	3.35E-1
PM	disease inc.	9.92E-8	4.33E-10	7.11E-10	1.00E-7	2.95E-10	6.01E-10	1.34E-11	-1.44E-8	8.68E-8
IR	kBq U-235 eq	2.26E-2	3.24E-4	5.87E-4	2.35E-2	2.19E-4	3.00E-4	8.66E-6	-8.86E-3	1.51E-2
ETP-fw	CTUe	4.11E+2	6.01E-2	4.57E-1	4.11E+2	4.07E-2	2.07E-1	2.05E-3	-5.80E+1	3.54E+2
HTP-c	CTUh	5.99E-9	2.16E-12	1.97E-11	6.02E-9	1.45E-12	1.07E-11	3.61E-14	-1.30E-9	4.72E-9
HTP-nc	CTUh	4.81E-7	7.13E-11	3.94E-10	4.81E-7	4.85E-11	2.28E-10	1.13E-12	-8.30E-8	3.98E-7
SQP	Pt	6.45E+0	6.27E-2	6.92E-2	6.58E+0	4.29E-2	9.68E-2	4.46E-3	-1.16E+0	5.56E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.35E+0	1.06E-3	7.58E-1	2.11E+0	7.19E-4	6.67E-3	3.56E-5	-3.50E-1	1.77E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.35E+0	1.06E-3	7.58E-1	2.11E+0	7.19E-4	6.67E-3	3.56E-5	-3.50E-1	1.77E+0
PENRE	MJ	8.23E+0	7.88E-2	8.28E-1	9.14E+0	5.32E-2	8.75E-2	2.15E-3	-2.84E+0	6.44E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	8.23E+0	7.88E-2	8.28E-1	9.14E+0	5.32E-2	8.75E-2	2.15E-3	-2.84E+0	6.44E+0
PET	MJ	9.58E+0	7.99E-2	1.59E+0	1.12E+1	5.39E-2	9.41E-2	2.18E-3	-3.19E+0	8.21E+0
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	1.20E-2	8.33E-6	1.82E-4	1.21E-2	5.67E-6	4.49E-5	2.25E-6	-3.45E-3	8.75E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	3.31E-4	1.88E-7	8.81E-7	3.32E-4	1.28E-7	1.75E-7	2.87E-9	-1.56E-4	1.77E-4
NHWD	kg	1.68E-1	4.53E-3	4.09E-3	1.77E-1	3.11E-3	3.60E-3	1.25E-2	-5.45E-2	1.41E-1
RWD	kg	1.93E-5	5.05E-7	6.66E-7	2.05E-5	3.41E-7	3.72E-7	1.33E-8	-7.08E-6	1.41E-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



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