

Environmental Profile

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

Ecochain v3.5.71



Product: 3041313 - Hep20 Brass Adapter 10x1/2" PF/TM
Unit: 1 piece
Manufacturer: Wavin - UK - Doncaster - Verified

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

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



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	3.16E-1	2.07E-3	2.77E-2	3.46E-1	1.63E-3	1.15E-2	1.31E-4	-9.36E-2	2.65E-1
GWP-f	kg CO2 eq	3.15E-1	2.07E-3	2.55E-2	3.43E-1	1.63E-3	1.15E-2	1.31E-4	-9.24E-2	2.64E-1
GWP-b	kg CO2 eq	1.36E-4	1.23E-6	2.18E-3	2.31E-3	9.91E-7	-5.94E-5	1.60E-7	-1.17E-3	1.08E-3
GWP-luluc	kg CO2 eq	3.84E-4	7.41E-7	7.28E-6	3.92E-4	5.78E-7	2.21E-6	9.93E-9	-1.13E-4	2.82E-4
ODP	kg CFC11 eq	1.75E-8	4.76E-10	3.09E-9	2.10E-8	3.76E-10	3.27E-10	1.45E-11	-4.85E-9	1.69E-8
AP	mol H+ eq	2.20E-2	1.26E-5	5.12E-5	2.21E-2	9.30E-6	1.89E-5	3.40E-7	-1.75E-3	2.03E-2
EP-fw	kg P eq	1.75E-4	1.69E-8	1.58E-7	1.75E-4	1.34E-8	9.93E-8	4.11E-10	-1.42E-5	1.61E-4
EP-m	kg N eq	1.16E-3	4.41E-6	1.21E-5	1.18E-3	3.33E-6	4.82E-6	2.25E-7	-2.10E-4	9.76E-4
EP-T	mol N eq	1.68E-2	4.86E-5	1.12E-4	1.70E-2	3.67E-5	5.45E-5	1.30E-6	-2.86E-3	1.42E-2
POCP	kg NMVOC eq	4.52E-3	1.38E-5	3.67E-5	4.57E-3	1.05E-5	1.57E-5	3.98E-7	-6.84E-4	3.91E-3
ADP-mm	kg Sb eq	1.39E-3	5.29E-8	1.91E-7	1.39E-3	4.22E-8	7.84E-8	3.28E-10	-6.49E-4	7.44E-4
ADP-f	MJ	3.72E+0	3.17E-2	3.67E-1	4.12E+0	2.51E-2	3.45E-2	1.00E-3	-1.21E+0	2.97E+0
WDP	m3 depriv.	2.30E-1	9.65E-5	3.24E-3	2.34E-1	7.69E-5	4.48E-4	3.66E-5	-6.34E-2	1.71E-1
PM	disease inc.	5.09E-8	1.85E-10	3.76E-10	5.15E-8	1.47E-10	2.70E-10	6.65E-12	-7.01E-9	4.49E-8
IR	kBq U-235 eq	1.20E-2	1.38E-4	2.93E-4	1.24E-2	1.10E-4	1.31E-4	4.26E-6	-4.65E-3	8.02E-3
ETP-fw	CTUe	2.15E+2	2.56E-2	2.49E-1	2.16E+2	2.04E-2	9.86E-2	9.52E-4	-3.04E+1	1.85E+2
HTP-c	CTUh	3.14E-9	9.20E-13	1.06E-11	3.15E-9	7.24E-13	4.36E-12	1.74E-14	-6.83E-10	2.47E-9
HTP-nc	CTUh	2.52E-7	3.05E-11	2.15E-10	2.52E-7	2.43E-11	1.05E-10	5.42E-13	-4.35E-8	2.09E-7
SQP	Pt	3.38E+0	2.68E-2	3.67E-2	3.44E+0	2.14E-2	4.38E-2	2.19E-3	-6.09E-1	2.90E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	7.08E-1	4.51E-4	4.35E-1	1.14E+0	3.60E-4	3.06E-3	1.60E-5	-1.83E-1	9.65E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	7.08E-1	4.51E-4	4.35E-1	1.14E+0	3.60E-4	3.06E-3	1.60E-5	-1.83E-1	9.65E-1
PENRE	MJ	3.97E+0	3.36E-2	4.04E-1	4.41E+0	2.66E-2	3.67E-2	1.06E-3	-1.29E+0	3.18E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	3.97E+0	3.36E-2	4.04E-1	4.41E+0	2.66E-2	3.67E-2	1.06E-3	-1.29E+0	3.18E+0
PET	MJ	4.68E+0	3.41E-2	8.39E-1	5.56E+0	2.70E-2	3.97E-2	1.08E-3	-1.47E+0	4.15E+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	6.05E-3	3.56E-6	9.37E-5	6.15E-3	2.84E-6	2.14E-5	1.11E-6	-1.70E-3	4.47E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.74E-4	8.03E-8	4.19E-7	1.74E-4	6.41E-8	7.91E-8	1.43E-9	-8.15E-5	9.26E-5
NHWD	kg	8.70E-2	1.94E-3	1.95E-3	9.08E-2	1.55E-3	1.52E-3	6.30E-3	-2.84E-2	7.18E-2
RWD	kg	1.04E-5	2.15E-7	3.17E-7	1.09E-5	1.70E-7	1.62E-7	6.58E-9	-3.72E-6	7.51E-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



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