

Environmental Profile

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

Ecochain v3.5.71



Product: 3031023 - Hep20 Brass Adapter 15x1/2 SP/TM
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	2.52E-1	1.20E-3	2.45E-2	2.78E-1	1.48E-3	1.12E-2	2.96E-5	-6.05E-2	2.30E-1
GWP-f	kg CO2 eq	2.56E-1	1.20E-3	2.24E-2	2.80E-1	1.47E-3	9.40E-4	2.95E-5	-6.09E-2	2.22E-1
GWP-b	kg CO2 eq	-4.26E-3	7.29E-7	2.03E-3	-2.23E-3	8.95E-7	1.02E-2	5.85E-8	5.40E-4	8.55E-3
GWP-luluc	kg CO2 eq	4.24E-4	4.25E-7	5.00E-6	4.29E-4	5.22E-7	-6.24E-7	8.22E-9	-1.53E-4	2.76E-4
ODP	kg CFC11 eq	1.71E-8	2.77E-10	2.82E-9	2.02E-8	3.40E-10	1.76E-10	1.21E-11	-4.92E-9	1.58E-8
AP	mol H+ eq	2.25E-2	6.84E-6	3.88E-5	2.26E-2	8.40E-6	1.16E-5	2.80E-7	-1.71E-3	2.09E-2
EP-fw	kg P eq	1.81E-4	9.87E-9	1.26E-7	1.81E-4	1.21E-8	4.81E-8	3.31E-10	-1.48E-5	1.66E-4
EP-m	kg N eq	1.15E-3	2.45E-6	9.98E-6	1.16E-3	3.00E-6	2.86E-6	9.63E-8	-1.94E-4	9.73E-4
EP-T	mol N eq	1.69E-2	2.70E-5	8.92E-5	1.70E-2	3.31E-5	3.27E-5	1.06E-6	-2.75E-3	1.43E-2
POCP	kg NMVOC eq	4.48E-3	7.70E-6	2.96E-5	4.51E-3	9.46E-6	8.09E-6	3.08E-7	-6.25E-4	3.91E-3
ADP-mm	kg Sb eq	1.44E-3	3.10E-8	1.26E-7	1.44E-3	3.81E-8	5.74E-8	2.70E-10	-6.73E-4	7.69E-4
ADP-f	MJ	2.97E+0	1.84E-2	3.27E-1	3.31E+0	2.26E-2	1.08E-2	8.24E-4	-8.42E-1	2.51E+0
WDP	m3 depriv.	2.14E-1	5.65E-5	2.67E-3	2.17E-1	6.94E-5	-1.24E-4	3.70E-5	-6.29E-2	1.54E-1
PM	disease inc.	5.04E-8	1.08E-10	2.85E-10	5.08E-8	1.33E-10	1.42E-10	5.43E-12	-6.59E-9	4.45E-8
IR	kBq U-235 eq	1.21E-2	8.05E-5	2.50E-4	1.24E-2	9.89E-5	6.97E-5	3.38E-6	-5.11E-3	7.47E-3
ETP-fw	CTUe	2.24E+2	1.50E-2	1.77E-1	2.24E+2	1.84E-2	5.93E-2	5.35E-4	-3.19E+1	1.92E+2
HTP-c	CTUh	3.24E-9	5.32E-13	7.71E-12	3.25E-9	6.54E-13	9.97E-13	1.24E-14	-7.08E-10	2.54E-9
HTP-nc	CTUh	2.61E-7	1.78E-11	1.51E-10	2.61E-7	2.19E-11	6.74E-11	3.80E-13	-4.51E-8	2.16E-7
SQP	Pt	4.02E+0	1.58E-2	2.75E-2	4.07E+0	1.94E-2	-2.64E-1	1.73E-3	-1.58E+0	2.24E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	8.18E-1	2.64E-4	2.73E-1	1.09E+0	3.25E-4	-4.07E-2	6.67E-6	-3.61E-1	6.90E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	8.18E-1	2.64E-4	2.73E-1	1.09E+0	3.25E-4	-4.07E-2	6.67E-6	-3.61E-1	6.90E-1
PENRE	MJ	3.16E+0	1.96E-2	3.60E-1	3.54E+0	2.40E-2	1.14E-2	8.76E-4	-8.95E-1	2.68E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	3.16E+0	1.96E-2	3.60E-1	3.54E+0	2.40E-2	1.14E-2	8.76E-4	-8.95E-1	2.68E+0
PET	MJ	3.98E+0	1.98E-2	6.34E-1	4.63E+0	2.43E-2	-2.93E-2	8.82E-4	-1.26E+0	3.37E+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	5.71E-3	2.08E-6	7.51E-5	5.79E-3	2.56E-6	2.77E-7	8.80E-7	-1.72E-3	4.07E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.80E-4	4.71E-8	3.91E-7	1.80E-4	5.79E-8	3.54E-8	1.23E-9	-8.45E-5	9.59E-5
NHWD	kg	8.82E-2	1.14E-3	1.82E-3	9.11E-2	1.40E-3	5.54E-4	5.60E-3	-2.96E-2	6.91E-2
RWD	kg	1.02E-5	1.25E-7	2.96E-7	1.06E-5	1.54E-7	9.13E-8	5.41E-9	-4.11E-6	6.77E-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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