

Environmental Profile

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

Ecochain v3.5.71



Product: 3031356 - Hep20 Brass Adapter 15x1/2 PF/TM NDZR
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	4.40E-1	1.59E-2	3.65E-2	4.92E-1	2.24E-3	1.47E-2	1.87E-4	-1.33E-1	3.76E-1
GWP-f	kg CO2 eq	4.39E-1	1.59E-2	3.35E-2	4.89E-1	2.24E-3	1.48E-2	1.87E-4	-1.32E-1	3.74E-1
GWP-b	kg CO2 eq	2.48E-4	-2.68E-6	2.90E-3	3.15E-3	1.36E-6	-8.19E-5	2.26E-7	-1.60E-3	1.47E-3
GWP-luluc	kg CO2 eq	5.18E-4	1.02E-5	9.06E-6	5.37E-4	7.92E-7	3.22E-6	1.36E-8	-1.52E-4	3.89E-4
ODP	kg CFC11 eq	2.32E-8	3.26E-9	4.10E-9	3.05E-8	5.16E-10	4.71E-10	1.99E-11	-6.52E-9	2.50E-8
AP	mol H+ eq	2.98E-2	4.54E-4	6.50E-5	3.03E-2	1.27E-5	2.66E-5	4.66E-7	-2.39E-3	2.80E-2
EP-fw	kg P eq	2.37E-4	7.47E-8	2.03E-7	2.37E-4	1.84E-8	1.41E-7	5.64E-10	-1.93E-5	2.18E-4
EP-m	kg N eq	1.58E-3	1.13E-4	1.56E-5	1.71E-3	4.56E-6	6.80E-6	3.16E-7	-2.90E-4	1.43E-3
EP-T	mol N eq	2.29E-2	1.26E-3	1.44E-4	2.43E-2	5.03E-5	7.67E-5	1.78E-6	-3.93E-3	2.05E-2
POCP	kg NMVOC eq	6.14E-3	3.27E-4	4.73E-5	6.52E-3	1.44E-5	2.22E-5	5.48E-7	-9.45E-4	5.61E-3
ADP-mm	kg Sb eq	1.88E-3	1.61E-7	2.36E-7	1.88E-3	5.79E-8	1.11E-7	4.50E-10	-8.78E-4	1.01E-3
ADP-f	MJ	5.14E+0	2.09E-1	4.84E-1	5.83E+0	3.44E-2	5.03E-2	1.37E-3	-1.70E+0	4.22E+0
WDP	m3 depriv.	3.15E-1	3.63E-4	4.19E-3	3.20E-1	1.05E-4	6.65E-4	4.96E-5	-8.77E-2	2.33E-1
PM	disease inc.	6.93E-8	6.27E-10	4.77E-10	7.04E-8	2.02E-10	3.85E-10	9.12E-12	-9.72E-9	6.12E-8
IR	kBq U-235 eq	1.61E-2	8.99E-4	3.82E-4	1.73E-2	1.50E-4	1.88E-4	5.85E-6	-6.28E-3	1.14E-2
ETP-fw	CTUe	2.91E+2	1.41E-1	3.12E-1	2.92E+2	2.79E-2	1.36E-1	1.33E-3	-4.11E+1	2.51E+2
HTP-c	CTUh	4.24E-9	8.71E-12	1.33E-11	4.26E-9	9.93E-13	6.42E-12	2.40E-14	-9.23E-10	3.35E-9
HTP-nc	CTUh	3.41E-7	1.24E-10	2.69E-10	3.41E-7	3.33E-11	1.48E-10	7.50E-13	-5.88E-8	2.82E-7
SQP	Pt	4.56E+0	5.41E-2	4.66E-2	4.66E+0	2.94E-2	6.22E-2	3.01E-3	-8.23E-1	3.93E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	9.57E-1	1.68E-3	5.33E-1	1.49E+0	4.93E-4	4.32E-3	2.25E-5	-2.47E-1	1.25E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	9.57E-1	1.68E-3	5.33E-1	1.49E+0	4.93E-4	4.32E-3	2.25E-5	-2.47E-1	1.25E+0
PENRE	MJ	5.50E+0	2.22E-1	5.32E-1	6.25E+0	3.65E-2	5.34E-2	1.46E-3	-1.83E+0	4.52E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	5.50E+0	2.22E-1	5.32E-1	6.25E+0	3.65E-2	5.34E-2	1.46E-3	-1.83E+0	4.52E+0
PET	MJ	6.45E+0	2.24E-1	1.07E+0	7.74E+0	3.70E-2	5.78E-2	1.48E-3	-2.07E+0	5.76E+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	8.26E-3	1.31E-5	1.20E-4	8.39E-3	3.89E-6	2.88E-5	1.52E-6	-2.34E-3	6.08E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	2.35E-4	2.50E-7	5.59E-7	2.35E-4	8.79E-8	1.12E-7	1.96E-9	-1.10E-4	1.25E-4
NHWD	kg	1.18E-1	2.62E-3	2.60E-3	1.23E-1	2.13E-3	2.19E-3	8.60E-3	-3.85E-2	9.75E-2
RWD	kg	1.38E-5	1.45E-6	4.23E-7	1.57E-5	2.34E-7	2.33E-7	9.03E-9	-5.02E-6	1.11E-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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