

Environmental Profile

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

Ecochain v3.5.71



Product: 3031645 - Hep20 Brass Adapter 15x1/2 SP/TM NDZR
 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	☑	☑	☑	☑									

Product stage

A1 Raw material supply A2 Transport A3 Manufacturing

Construction process stage

A4 Transport gate to site
 A5 Assembly / Construction installation process

Use stage

B1 Use B2 Maintenance B3 Repair B4 Replacement B5 Refurbishment
 B6 Operational energy use B7 Operational water use

End-of-Life stage

C1 De-construction demolition C2 Transport C3 Waste processing
 C4 Disposal

Benefits and loads beyond the system boundaries

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	2.51E-1	1.11E-3	2.45E-2	2.77E-1	1.48E-3	1.03E-3	2.96E-5	-5.93E-2	2.20E-1
GWP-f	kg CO2 eq	2.51E-1	1.11E-3	2.24E-2	2.74E-1	1.47E-3	1.09E-3	2.95E-5	-5.80E-2	2.19E-1
GWP-b	kg CO2 eq	9.91E-5	6.71E-7	2.03E-3	2.13E-3	8.95E-7	-5.43E-5	5.85E-8	-1.16E-3	9.25E-4
GWP-luluc	kg CO2 eq	3.92E-4	3.91E-7	5.00E-6	3.97E-4	5.22E-7	1.13E-6	8.22E-9	-1.17E-4	2.83E-4
ODP	kg CFC11 eq	1.64E-8	2.55E-10	2.82E-9	1.95E-8	3.40E-10	1.65E-10	1.21E-11	-4.54E-9	1.55E-8
AP	mol H+ eq	2.25E-2	6.30E-6	3.88E-5	2.25E-2	8.40E-6	1.25E-5	2.80E-7	-1.69E-3	2.09E-2
EP-fw	kg P eq	1.81E-4	9.10E-9	1.26E-7	1.81E-4	1.21E-8	6.83E-8	3.31E-10	-1.44E-5	1.66E-4
EP-m	kg N eq	1.14E-3	2.25E-6	9.98E-6	1.15E-3	3.00E-6	2.81E-6	9.63E-8	-1.88E-4	9.68E-4
EP-T	mol N eq	1.68E-2	2.48E-5	8.92E-5	1.69E-2	3.31E-5	3.25E-5	1.06E-6	-2.68E-3	1.43E-2
POCP	kg NMVOC eq	4.45E-3	7.10E-6	2.96E-5	4.49E-3	9.46E-6	9.02E-6	3.08E-7	-6.09E-4	3.90E-3
ADP-mm	kg Sb eq	1.44E-3	2.86E-8	1.26E-7	1.44E-3	3.81E-8	5.60E-8	2.70E-10	-6.73E-4	7.69E-4
ADP-f	MJ	2.89E+0	1.70E-2	3.27E-1	3.23E+0	2.26E-2	1.55E-2	8.24E-4	-7.94E-1	2.48E+0
WDP	m3 depriv.	2.12E-1	5.21E-5	2.67E-3	2.15E-1	6.94E-5	-7.04E-6	3.70E-5	-5.54E-2	1.60E-1
PM	disease inc.	4.99E-8	9.98E-11	2.85E-10	5.03E-8	1.33E-10	1.76E-10	5.43E-12	-6.09E-9	4.45E-8
IR	kBq U-235 eq	1.18E-2	7.42E-5	2.50E-4	1.21E-2	9.89E-5	7.44E-5	3.38E-6	-4.78E-3	7.53E-3
ETP-fw	CTUe	2.23E+2	1.38E-2	1.77E-1	2.23E+2	1.84E-2	6.33E-2	5.35E-4	-3.15E+1	1.92E+2
HTP-c	CTUh	3.24E-9	4.90E-13	7.71E-12	3.25E-9	6.54E-13	1.76E-12	1.24E-14	-7.05E-10	2.54E-9
HTP-nc	CTUh	2.61E-7	1.64E-11	1.51E-10	2.61E-7	2.19E-11	7.06E-11	3.80E-13	-4.50E-8	2.16E-7
SQP	Pt	3.44E+0	1.45E-2	2.75E-2	3.49E+0	1.94E-2	2.99E-2	1.73E-3	-6.28E-1	2.91E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	7.21E-1	2.43E-4	2.73E-1	9.94E-1	3.25E-4	2.15E-3	6.67E-6	-1.87E-1	8.10E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	7.21E-1	2.43E-4	2.73E-1	9.94E-1	3.25E-4	2.15E-3	6.67E-6	-1.87E-1	8.10E-1
PENRE	MJ	3.08E+0	1.80E-2	3.60E-1	3.45E+0	2.40E-2	1.64E-2	8.76E-4	-8.45E-1	2.65E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	3.08E+0	1.80E-2	3.60E-1	3.45E+0	2.40E-2	1.64E-2	8.76E-4	-8.45E-1	2.65E+0
PET	MJ	3.80E+0	1.83E-2	6.34E-1	4.45E+0	2.43E-2	1.86E-2	8.82E-4	-1.03E+0	3.46E+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	5.64E-3	1.92E-6	7.51E-5	5.72E-3	2.56E-6	3.15E-6	8.80E-7	-1.52E-3	4.20E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.80E-4	4.34E-8	3.91E-7	1.80E-4	5.79E-8	4.52E-8	1.23E-9	-8.45E-5	9.59E-5
NHWD	kg	8.71E-2	1.05E-3	1.82E-3	9.00E-2	1.40E-3	5.00E-4	5.60E-3	-2.92E-2	6.83E-2
RWD	kg	9.94E-6	1.15E-7	2.96E-7	1.04E-5	1.54E-7	9.11E-8	5.41E-9	-3.80E-6	6.80E-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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