

Environmental Profile

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

Ecochain v3.5.71



Product: 3031369 - Hep20 Brass Elbow 90° 22x3/4 PF/TF
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	1.15E+0	6.99E-3	1.03E-1	1.26E+0	6.11E-3	2.38E-2	3.63E-4	-3.23E-1	9.64E-1
GWP-f	kg CO2 eq	1.15E+0	6.98E-3	9.44E-2	1.25E+0	6.11E-3	2.41E-2	3.63E-4	-3.19E-1	9.59E-1
GWP-b	kg CO2 eq	6.75E-4	4.17E-6	8.42E-3	9.10E-3	3.71E-6	-2.25E-4	4.73E-7	-4.53E-3	4.36E-3
GWP-luluc	kg CO2 eq	1.49E-3	2.50E-6	2.26E-5	1.51E-3	2.16E-6	7.38E-6	3.59E-8	-4.40E-4	1.08E-3
ODP	kg CFC11 eq	6.40E-8	1.61E-9	1.18E-8	7.74E-8	1.41E-9	1.08E-9	5.26E-11	-1.80E-8	6.19E-8
AP	mol H+ eq	8.56E-2	4.22E-5	1.70E-4	8.58E-2	3.48E-5	6.51E-5	1.23E-6	-6.70E-3	7.92E-2
EP-fw	kg P eq	6.83E-4	5.71E-8	5.44E-7	6.83E-4	5.03E-8	3.50E-7	1.47E-9	-5.52E-5	6.29E-4
EP-m	kg N eq	4.46E-3	1.48E-5	4.27E-5	4.52E-3	1.24E-5	1.60E-5	6.85E-7	-7.89E-4	3.76E-3
EP-T	mol N eq	6.50E-2	1.63E-4	3.86E-4	6.56E-2	1.37E-4	1.82E-4	4.68E-6	-1.09E-2	5.50E-2
POCP	kg NMVOC eq	1.74E-2	4.64E-5	1.28E-4	1.75E-2	3.92E-5	5.22E-5	1.41E-6	-2.57E-3	1.51E-2
ADP-mm	kg Sb eq	5.44E-3	1.79E-7	5.77E-7	5.44E-3	1.58E-7	2.79E-7	1.18E-9	-2.54E-3	2.90E-3
ADP-f	MJ	1.33E+1	1.07E-1	1.37E+0	1.47E+1	9.38E-2	1.12E-1	3.61E-3	-4.18E+0	1.08E+1
WDP	m3 depriv.	8.67E-1	3.26E-4	1.14E-2	8.79E-1	2.88E-4	1.14E-3	1.42E-4	-2.37E-1	6.44E-1
PM	disease inc.	1.95E-7	6.25E-10	1.25E-9	1.97E-7	5.51E-10	9.41E-10	2.39E-11	-2.62E-8	1.73E-7
IR	kBq U-235 eq	4.53E-2	4.67E-4	1.06E-3	4.69E-2	4.10E-4	4.43E-4	1.52E-5	-1.81E-2	2.97E-2
ETP-fw	CTUe	8.41E+2	8.67E-2	7.92E-1	8.42E+2	7.61E-2	3.29E-1	3.08E-3	-1.19E+2	7.24E+2
HTP-c	CTUh	1.22E-8	3.11E-12	3.42E-11	1.23E-8	2.71E-12	1.41E-11	6.00E-14	-2.66E-9	9.63E-9
HTP-nc	CTUh	9.84E-7	1.03E-10	6.80E-10	9.85E-7	9.08E-11	3.64E-10	1.86E-12	-1.70E-7	8.15E-7
SQP	Pt	1.31E+1	9.07E-2	1.21E-1	1.33E+1	8.02E-2	1.54E-1	7.80E-3	-2.37E+0	1.12E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	2.74E+0	1.53E-3	1.28E+0	4.02E+0	1.35E-3	1.08E-2	4.85E-5	-7.11E-1	3.32E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	2.74E+0	1.53E-3	1.28E+0	4.02E+0	1.35E-3	1.08E-2	4.85E-5	-7.11E-1	3.32E+0
PENRE	MJ	1.42E+1	1.14E-1	1.51E+0	1.58E+1	9.95E-2	1.19E-1	3.84E-3	-4.47E+0	1.15E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.42E+1	1.14E-1	1.51E+0	1.58E+1	9.95E-2	1.19E-1	3.84E-3	-4.47E+0	1.15E+1
PET	MJ	1.69E+1	1.15E-1	2.79E+0	1.98E+1	1.01E-1	1.30E-1	3.88E-3	-5.18E+0	1.49E+1
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	2.28E-2	1.20E-5	3.24E-4	2.32E-2	1.06E-5	5.10E-5	3.95E-6	-6.38E-3	1.68E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	6.78E-4	2.72E-7	1.62E-6	6.80E-4	2.40E-7	2.62E-7	5.24E-9	-3.18E-4	3.62E-4
NHWD	kg	3.36E-1	6.56E-3	7.53E-3	3.50E-1	5.81E-3	4.57E-3	2.33E-2	-1.11E-1	2.73E-1
RWD	kg	3.85E-5	7.28E-7	1.23E-6	4.04E-5	6.38E-7	5.47E-7	2.37E-8	-1.44E-5	2.72E-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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