

Environmental Profile

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

Ecochain v3.5.71



Product: 3030663 - Hep20 Brass Adapter 15x1/2 PF/TF
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

This document and supporting material contain confidential and proprietary business information of Wavin - UK - Doncaster - Verified. These materials may be printed or (photo) copied or otherwise used only with the written consent of Wavin - UK - Doncaster - Verified.

Results

Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	4.19E-1	3.02E-3	3.65E-2	4.58E-1	2.11E-3	2.48E-2	1.84E-4	-1.29E-1	3.56E-1
GWP-f	kg CO2 eq	4.22E-1	3.02E-3	3.35E-2	4.59E-1	2.11E-3	1.46E-2	1.84E-4	-1.29E-1	3.47E-1
GWP-b	kg CO2 eq	-4.12E-3	1.79E-6	2.90E-3	-1.22E-3	1.28E-6	1.02E-2	2.20E-7	2.00E-4	9.20E-3
GWP-luluc	kg CO2 eq	5.15E-4	1.08E-6	9.06E-6	5.25E-4	7.46E-7	1.37E-6	1.29E-8	-1.79E-4	3.48E-4
ODP	kg CFC11 eq	2.24E-8	6.94E-10	4.10E-9	2.72E-8	4.85E-10	4.67E-10	1.88E-11	-6.49E-9	2.17E-8
AP	mol H+ eq	2.78E-2	1.85E-5	6.50E-5	2.79E-2	1.20E-5	2.47E-5	4.41E-7	-2.26E-3	2.57E-2
EP-fw	kg P eq	2.21E-4	2.46E-8	2.03E-7	2.21E-4	1.73E-8	1.14E-7	5.34E-10	-1.85E-5	2.03E-4
EP-m	kg N eq	1.49E-3	6.45E-6	1.56E-5	1.51E-3	4.29E-6	6.60E-6	3.07E-7	-2.79E-4	1.24E-3
EP-T	mol N eq	2.15E-2	7.11E-5	1.44E-4	2.17E-2	4.73E-5	7.39E-5	1.69E-6	-3.76E-3	1.80E-2
POCP	kg NMVOC eq	5.77E-3	2.02E-5	4.73E-5	5.84E-3	1.35E-5	2.04E-5	5.20E-7	-9.07E-4	4.96E-3
ADP-mm	kg Sb eq	1.75E-3	7.71E-8	2.36E-7	1.75E-3	5.45E-8	1.07E-7	4.26E-10	-8.18E-4	9.37E-4
ADP-f	MJ	4.97E+0	4.62E-2	4.84E-1	5.50E+0	3.23E-2	4.42E-2	1.30E-3	-1.68E+0	3.89E+0
WDP	m3 depriv.	2.98E-1	1.41E-4	4.19E-3	3.02E-1	9.92E-5	5.49E-4	4.63E-5	-9.03E-2	2.13E-1
PM	disease inc.	6.53E-8	2.69E-10	4.77E-10	6.61E-8	1.90E-10	3.34E-10	8.63E-12	-9.68E-9	5.69E-8
IR	kBq U-235 eq	1.53E-2	2.02E-4	3.82E-4	1.59E-2	1.41E-4	1.77E-4	5.55E-6	-6.18E-3	1.00E-2
ETP-fw	CTUe	2.72E+2	3.74E-2	3.12E-1	2.72E+2	2.63E-2	1.26E-1	1.28E-3	-3.87E+1	2.34E+2
HTP-c	CTUh	3.96E-9	1.34E-12	1.33E-11	3.97E-9	9.34E-13	5.50E-12	2.29E-14	-8.63E-10	3.12E-9
HTP-nc	CTUh	3.17E-7	4.44E-11	2.69E-10	3.18E-7	3.13E-11	1.38E-10	7.16E-13	-5.49E-8	2.63E-7
SQP	Pt	4.84E+0	3.91E-2	4.66E-2	4.92E+0	2.77E-2	-2.34E-1	2.86E-3	-1.72E+0	3.00E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	9.90E-1	6.57E-4	5.33E-1	1.52E+0	4.64E-4	-3.87E-2	2.19E-5	-4.05E-1	1.08E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	9.90E-1	6.57E-4	5.33E-1	1.52E+0	4.64E-4	-3.87E-2	2.19E-5	-4.05E-1	1.08E+0
PENRE	MJ	5.31E+0	4.90E-2	5.32E-1	5.89E+0	3.43E-2	4.69E-2	1.38E-3	-1.80E+0	4.17E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	5.31E+0	4.90E-2	5.32E-1	5.89E+0	3.43E-2	4.69E-2	1.38E-3	-1.80E+0	4.17E+0
PET	MJ	6.30E+0	4.97E-2	1.07E+0	7.42E+0	3.48E-2	8.22E-3	1.40E-3	-2.21E+0	5.25E+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	7.83E-3	5.18E-6	1.20E-4	7.95E-3	3.66E-6	2.57E-5	1.44E-6	-2.40E-3	5.58E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	2.19E-4	1.17E-7	5.59E-7	2.19E-4	8.27E-8	9.80E-8	1.85E-9	-1.03E-4	1.17E-4
NHWD	kg	1.11E-1	2.82E-3	2.60E-3	1.17E-1	2.00E-3	2.20E-3	8.10E-3	-3.63E-2	9.28E-2
RWD	kg	1.32E-5	3.14E-7	4.23E-7	1.39E-5	2.20E-7	2.25E-7	8.54E-9	-4.99E-6	9.40E-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



Ecochain Technologies BV
H.J.E. Wenckebachweg 123, 1096 AM Amsterdam, The Netherlands
<https://www.ecochain.com>
+31 20 3035 777