

Environmental Profile

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

Ecochain v3.5.71



Product: 3030706 - Hep20 Tank Connector 15x1/2
 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	3.10E-1	2.19E-3	2.17E-2	3.34E-1	9.50E-4	5.04E-2	4.47E-4	-1.63E-1	2.22E-1
GWP-f	kg CO2 eq	3.14E-1	2.19E-3	2.04E-2	3.36E-1	9.50E-4	4.01E-2	4.47E-4	-1.65E-1	2.13E-1
GWP-b	kg CO2 eq	-3.65E-3	1.29E-6	1.29E-3	-2.35E-3	5.77E-7	1.03E-2	4.42E-7	1.42E-3	9.32E-3
GWP-luluc	kg CO2 eq	5.63E-5	7.88E-7	1.09E-5	6.80E-5	3.36E-7	3.48E-6	9.21E-9	-3.78E-5	3.40E-5
ODP	kg CFC11 eq	6.58E-9	5.03E-10	2.09E-9	9.17E-9	2.19E-10	7.74E-10	1.22E-11	-2.12E-9	8.06E-9
AP	mol H+ eq	1.52E-3	1.38E-5	6.36E-5	1.59E-3	5.41E-6	3.01E-5	3.04E-7	-5.87E-4	1.04E-3
EP-fw	kg P eq	9.73E-6	1.78E-8	1.73E-7	9.93E-6	7.81E-9	1.34E-7	4.15E-10	-2.08E-6	7.99E-6
EP-m	kg N eq	4.04E-4	4.76E-6	1.19E-5	4.21E-4	1.94E-6	9.38E-6	5.48E-7	-1.33E-4	3.00E-4
EP-T	mol N eq	2.70E-3	5.25E-5	1.22E-4	2.87E-3	2.13E-5	1.02E-4	1.21E-6	-1.33E-3	1.66E-3
POCP	kg NMVOC eq	8.81E-4	1.49E-5	3.89E-5	9.35E-4	6.10E-6	3.02E-5	4.39E-7	-4.60E-4	5.12E-4
ADP-mm	kg Sb eq	8.31E-6	5.56E-8	3.05E-7	8.68E-6	2.46E-8	1.14E-7	3.02E-10	-1.20E-6	7.61E-6
ADP-f	MJ	4.46E+0	3.35E-2	2.77E-1	4.77E+0	1.46E-2	8.53E-2	9.00E-4	-2.03E+0	2.84E+0
WDP	m3 depriv.	2.55E-1	1.02E-4	3.24E-3	2.59E-1	4.47E-5	1.89E-3	6.07E-6	-5.17E-2	2.09E-1
PM	disease inc.	1.26E-8	1.94E-10	4.66E-10	1.32E-8	8.57E-11	4.30E-10	6.14E-12	-5.70E-9	8.03E-9
IR	kBq U-235 eq	2.49E-3	1.46E-4	2.63E-4	2.90E-3	6.37E-5	2.68E-4	4.30E-6	-4.59E-4	2.78E-3
ETP-fw	CTUe	1.79E+0	2.70E-2	3.50E-1	2.17E+0	1.18E-2	1.55E-1	1.84E-3	-5.24E-1	1.81E+0
HTP-c	CTUh	8.69E-11	9.74E-13	1.42E-11	1.02E-10	4.21E-13	1.26E-11	2.51E-14	-1.65E-11	9.87E-11
HTP-nc	CTUh	1.27E-9	3.21E-11	3.08E-10	1.61E-9	1.41E-11	1.66E-10	7.58E-13	-3.85E-10	1.40E-9
SQP	Pt	8.48E-1	2.82E-2	4.67E-2	9.23E-1	1.25E-2	-2.24E-1	2.28E-3	-9.68E-1	-2.55E-1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.71E-1	4.75E-4	7.46E-1	9.17E-1	2.09E-4	-3.83E-2	4.01E-5	-1.84E-1	6.95E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.71E-1	4.75E-4	7.46E-1	9.17E-1	2.09E-4	-3.83E-2	4.01E-5	-1.84E-1	6.95E-1
PENRE	MJ	4.80E+0	3.55E-2	3.03E-1	5.13E+0	1.55E-2	9.09E-2	9.54E-4	-2.20E+0	3.05E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	4.80E+0	3.55E-2	3.03E-1	5.13E+0	1.55E-2	9.09E-2	9.54E-4	-2.20E+0	3.05E+0
PET	MJ	4.97E+0	3.60E-2	1.05E+0	6.05E+0	1.57E-2	5.26E-2	9.95E-4	-2.38E+0	3.74E+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	6.04E-3	3.74E-6	1.01E-4	6.14E-3	1.65E-6	7.09E-5	1.11E-6	-1.23E-3	4.98E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	8.10E-7	8.45E-8	2.52E-7	1.15E-6	3.73E-8	1.50E-7	1.09E-9	-3.80E-7	9.55E-7
NHWD	kg	1.82E-2	2.04E-3	1.18E-3	2.14E-2	9.03E-4	4.68E-3	3.90E-3	-1.80E-3	2.91E-2
RWD	kg	3.06E-6	2.28E-7	1.90E-7	3.48E-6	9.91E-8	3.42E-7	5.90E-9	-4.87E-7	3.44E-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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