

Environmental Profile

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

Ecochain v3.5.71



Product: 3029591 - Hep20 Pb Straight Connector WT 22
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	4.64E-1	7.23E-3	3.16E-2	5.03E-1	1.56E-3	6.35E-2	6.97E-4	-2.32E-1	3.36E-1
GWP-f	kg CO2 eq	4.67E-1	7.23E-3	2.93E-2	5.04E-1	1.55E-3	5.23E-2	6.97E-4	-2.36E-1	3.23E-1
GWP-b	kg CO2 eq	-3.39E-3	4.18E-6	2.24E-3	-1.14E-3	9.44E-7	1.11E-2	7.01E-7	3.31E-3	1.33E-2
GWP-luluc	kg CO2 eq	6.61E-5	2.63E-6	1.13E-5	8.00E-5	5.50E-7	7.22E-6	1.36E-8	-5.25E-5	3.53E-5
ODP	kg CFC11 eq	5.92E-9	1.66E-9	3.33E-9	1.09E-8	3.58E-10	1.32E-9	1.90E-11	-2.79E-9	9.82E-9
AP	mol H+ eq	2.18E-3	4.81E-5	7.19E-5	2.30E-3	8.85E-6	5.11E-5	4.72E-7	-9.04E-4	1.46E-3
EP-fw	kg P eq	5.77E-6	5.83E-8	2.09E-7	6.03E-6	1.28E-8	2.43E-7	6.25E-10	-2.64E-6	3.66E-6
EP-m	kg N eq	4.03E-4	1.63E-5	1.52E-5	4.34E-4	3.17E-6	1.56E-5	8.94E-7	-1.88E-4	2.66E-4
EP-T	mol N eq	4.08E-3	1.80E-4	1.47E-4	4.41E-3	3.49E-5	1.70E-4	1.88E-6	-1.90E-3	2.71E-3
POCP	kg NMVOC eq	1.53E-3	5.08E-5	4.77E-5	1.62E-3	9.98E-6	5.14E-5	6.84E-7	-7.10E-4	9.76E-4
ADP-mm	kg Sb eq	8.52E-6	1.82E-7	3.08E-7	9.01E-6	4.02E-8	1.97E-7	4.61E-10	-1.36E-6	7.89E-6
ADP-f	MJ	6.38E+0	1.10E-1	4.13E-1	6.90E+0	2.39E-2	1.49E-1	1.40E-3	-3.23E+0	3.85E+0
WDP	m3 depriv.	1.43E-1	3.33E-4	4.10E-3	1.48E-1	7.32E-5	3.17E-3	6.48E-6	-6.76E-2	8.35E-2
PM	disease inc.	1.89E-8	6.37E-10	5.27E-10	2.01E-8	1.40E-10	7.66E-10	9.55E-12	-8.61E-9	1.24E-8
IR	kBq U-235 eq	2.24E-3	4.82E-4	3.53E-4	3.07E-3	1.04E-4	4.65E-4	6.77E-6	-5.99E-4	3.05E-3
ETP-fw	CTUe	1.99E+0	8.90E-2	3.73E-1	2.46E+0	1.94E-2	2.48E-1	2.96E-3	-7.22E-1	2.00E+0
HTP-c	CTUh	1.03E-10	3.23E-12	1.55E-11	1.22E-10	6.89E-13	2.06E-11	3.71E-14	-2.27E-11	1.20E-10
HTP-nc	CTUh	1.64E-9	1.05E-10	3.26E-10	2.07E-9	2.31E-11	2.76E-10	1.19E-12	-5.40E-10	1.83E-9
SQP	Pt	9.52E-1	9.20E-2	5.22E-2	1.10E+0	2.04E-2	-1.74E-1	3.56E-3	-1.35E+0	-4.00E-1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.81E-1	1.56E-3	7.30E-1	9.13E-1	3.42E-4	-3.51E-2	6.47E-5	-2.58E-1	6.21E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.81E-1	1.56E-3	7.30E-1	9.13E-1	3.42E-4	-3.51E-2	6.47E-5	-2.58E-1	6.21E-1
PENRE	MJ	6.88E+0	1.17E-1	4.52E-1	7.45E+0	2.53E-2	1.59E-1	1.49E-3	-3.49E+0	4.15E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	6.88E+0	1.17E-1	4.52E-1	7.45E+0	2.53E-2	1.59E-1	1.49E-3	-3.49E+0	4.15E+0
PET	MJ	7.06E+0	1.19E-1	1.18E+0	8.36E+0	2.57E-2	1.24E-1	1.55E-3	-3.75E+0	4.77E+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	3.44E-3	1.23E-5	1.23E-4	3.58E-3	2.70E-6	1.03E-4	1.75E-6	-1.61E-3	2.08E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	9.25E-7	2.77E-7	4.33E-7	1.63E-6	6.10E-8	2.54E-7	1.67E-9	-5.09E-7	1.44E-6
NHWD	kg	2.18E-2	6.64E-3	2.02E-3	3.05E-2	1.48E-3	7.66E-3	6.11E-3	-2.60E-3	4.31E-2
RWD	kg	2.66E-6	7.51E-7	3.28E-7	3.74E-6	1.62E-7	5.91E-7	9.24E-9	-6.26E-7	3.87E-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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