

Environmental Profile

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

Ecochain v3.5.71



Product: 3029590 - Hep20 Pb Straight Connector WT 15
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

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Results

Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	2.55E-1	3.92E-3	1.85E-2	2.78E-1	8.44E-4	3.85E-2	3.89E-4	-1.27E-1	1.91E-1
GWP-f	kg CO2 eq	2.57E-1	3.92E-3	1.73E-2	2.78E-1	8.44E-4	3.27E-2	3.89E-4	-1.29E-1	1.83E-1
GWP-b	kg CO2 eq	-1.75E-3	2.27E-6	1.15E-3	-6.01E-4	5.12E-7	5.80E-3	3.91E-7	2.17E-3	7.37E-3
GWP-luluc	kg CO2 eq	4.08E-5	1.42E-6	8.63E-6	5.08E-5	2.99E-7	3.90E-6	7.57E-9	-3.01E-5	2.49E-5
ODP	kg CFC11 eq	4.42E-9	8.99E-10	1.82E-9	7.14E-9	1.94E-10	7.15E-10	1.06E-11	-1.74E-9	6.32E-9
AP	mol H+ eq	1.19E-3	2.60E-5	5.12E-5	1.27E-3	4.81E-6	2.80E-5	2.63E-7	-4.86E-4	8.15E-4
EP-fw	kg P eq	3.33E-6	3.16E-8	1.41E-7	3.51E-6	6.94E-9	1.31E-7	3.48E-10	-1.47E-6	2.17E-6
EP-m	kg N eq	2.22E-4	8.81E-6	9.85E-6	2.41E-4	1.72E-6	8.61E-6	4.98E-7	-1.02E-4	1.49E-4
EP-T	mol N eq	2.25E-3	9.72E-5	9.96E-5	2.45E-3	1.89E-5	9.39E-5	1.05E-6	-1.03E-3	1.53E-3
POCP	kg NMVOC eq	8.38E-4	2.74E-5	3.18E-5	8.97E-4	5.42E-6	2.82E-5	3.81E-7	-3.82E-4	5.50E-4
ADP-mm	kg Sb eq	6.55E-6	9.87E-8	2.40E-7	6.89E-6	2.18E-8	1.06E-7	2.57E-10	-8.16E-7	6.20E-6
ADP-f	MJ	3.53E+0	5.98E-2	2.37E-1	3.83E+0	1.30E-2	8.02E-2	7.81E-4	-1.75E+0	2.17E+0
WDP	m3 depriv.	8.14E-2	1.80E-4	2.67E-3	8.42E-2	3.97E-5	1.74E-3	3.61E-6	-3.74E-2	4.86E-2
PM	disease inc.	1.05E-8	3.45E-10	3.75E-10	1.12E-8	7.62E-11	4.13E-10	5.33E-12	-4.65E-9	7.04E-9
IR	kBq U-235 eq	1.65E-3	2.61E-4	2.19E-4	2.13E-3	5.66E-5	2.50E-4	3.77E-6	-3.62E-4	2.08E-3
ETP-fw	CTUe	1.21E+0	4.82E-2	2.78E-1	1.53E+0	1.05E-2	1.40E-1	1.65E-3	-4.13E-1	1.27E+0
HTP-c	CTUh	5.77E-11	1.75E-12	1.13E-11	7.07E-11	3.74E-13	1.10E-11	2.07E-14	-1.26E-11	6.95E-11
HTP-nc	CTUh	9.41E-10	5.70E-11	2.45E-10	1.24E-9	1.25E-11	1.50E-10	6.64E-13	-3.00E-10	1.11E-9
SQP	Pt	5.35E-1	4.99E-2	3.75E-2	6.23E-1	1.11E-2	-8.30E-2	1.98E-3	-7.70E-1	-2.17E-1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.03E-1	8.44E-4	5.84E-1	6.87E-1	1.86E-4	-1.73E-2	3.61E-5	-1.47E-1	5.24E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.03E-1	8.44E-4	5.84E-1	6.87E-1	1.86E-4	-1.73E-2	3.61E-5	-1.47E-1	5.24E-1
PENRE	MJ	3.81E+0	6.35E-2	2.59E-1	4.13E+0	1.37E-2	8.54E-2	8.28E-4	-1.89E+0	2.34E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	3.81E+0	6.35E-2	2.59E-1	4.13E+0	1.37E-2	8.54E-2	8.28E-4	-1.89E+0	2.34E+0
PET	MJ	3.91E+0	6.43E-2	8.43E-1	4.82E+0	1.39E-2	6.82E-2	8.64E-4	-2.04E+0	2.86E+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	1.96E-3	6.65E-6	8.25E-5	2.05E-3	1.47E-6	6.14E-5	9.73E-7	-8.92E-4	1.22E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	5.79E-7	1.50E-7	2.24E-7	9.52E-7	3.31E-8	1.40E-7	9.31E-10	-3.14E-7	8.12E-7
NHWD	kg	1.21E-2	3.60E-3	1.05E-3	1.67E-2	8.03E-4	4.19E-3	3.40E-3	-1.44E-3	2.37E-2
RWD	kg	2.03E-6	4.07E-7	1.69E-7	2.61E-6	8.81E-8	3.17E-7	5.15E-9	-3.83E-7	2.63E-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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