

Environmental Profile

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

Ecochain v3.5.71



Product: 3029618 - Hep20 Pb Demountable Pipe End Cap W 10
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	8.63E-2	1.20E-3	8.88E-3	9.64E-2	2.90E-4	1.75E-2	1.37E-4	-4.39E-2	7.04E-2
GWP-f	kg CO2 eq	8.84E-2	1.20E-3	8.53E-3	9.81E-2	2.90E-4	1.26E-2	1.37E-4	-4.41E-2	6.70E-2
GWP-b	kg CO2 eq	-2.09E-3	6.95E-7	3.51E-4	-1.74E-3	1.76E-7	4.91E-3	1.38E-7	2.39E-4	3.41E-3
GWP-luluc	kg CO2 eq	1.97E-5	4.36E-7	6.66E-6	2.68E-5	1.03E-7	7.05E-7	2.67E-9	-1.51E-5	1.26E-5
ODP	kg CFC11 eq	2.02E-9	2.76E-10	7.12E-10	3.01E-9	6.69E-11	2.32E-10	3.75E-12	-7.16E-10	2.60E-9
AP	mol H+ eq	4.12E-4	7.94E-6	3.59E-5	4.56E-4	1.65E-6	8.84E-6	9.29E-8	-1.66E-4	3.01E-4
EP-fw	kg P eq	1.23E-6	9.70E-9	9.18E-8	1.33E-6	2.39E-9	3.64E-8	1.23E-10	-5.56E-7	8.12E-7
EP-m	kg N eq	7.73E-5	2.70E-6	5.93E-6	8.59E-5	5.91E-7	2.81E-6	1.76E-7	-3.51E-5	5.44E-5
EP-T	mol N eq	7.85E-4	2.97E-5	6.46E-5	8.79E-4	6.52E-6	3.05E-5	3.70E-7	-3.56E-4	5.61E-4
POCP	kg NMVOC eq	2.92E-4	8.40E-6	2.02E-5	3.20E-4	1.86E-6	8.79E-6	1.35E-7	-1.30E-4	2.01E-4
ADP-mm	kg Sb eq	2.89E-6	3.03E-8	1.91E-7	3.11E-6	7.51E-9	3.40E-8	9.08E-11	-3.00E-7	2.85E-6
ADP-f	MJ	1.24E+0	1.83E-2	1.09E-1	1.37E+0	4.45E-3	2.46E-2	2.76E-4	-6.02E-1	7.97E-1
WDP	m3 depriv.	2.86E-2	5.53E-5	1.62E-3	3.03E-2	1.37E-5	5.57E-4	1.27E-6	-1.35E-2	1.73E-2
PM	disease inc.	3.70E-9	1.06E-10	2.63E-10	4.07E-9	2.62E-11	1.21E-10	1.88E-12	-1.62E-9	2.60E-9
IR	kBq U-235 eq	7.53E-4	8.01E-5	1.21E-4	9.54E-4	1.95E-5	7.86E-5	1.33E-6	-1.73E-4	8.81E-4
ETP-fw	CTUe	5.34E-1	1.48E-2	2.09E-1	7.58E-1	3.62E-3	4.66E-2	5.82E-4	-1.94E-1	6.15E-1
HTP-c	CTUh	2.11E-11	5.36E-13	8.30E-12	2.99E-11	1.29E-13	3.30E-12	7.31E-15	-4.71E-12	2.86E-11
HTP-nc	CTUh	3.51E-10	1.75E-11	1.85E-10	5.54E-10	4.31E-12	4.87E-11	2.34E-13	-1.16E-10	4.91E-10
SQP	Pt	3.40E-1	1.53E-2	2.67E-2	3.82E-1	3.81E-3	-1.26E-1	7.00E-4	-3.88E-1	-1.27E-1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	6.01E-2	2.59E-4	4.76E-1	5.37E-1	6.39E-5	-2.01E-2	1.27E-5	-7.30E-2	4.44E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	6.01E-2	2.59E-4	4.76E-1	5.37E-1	6.39E-5	-2.01E-2	1.27E-5	-7.30E-2	4.44E-1
PENRE	MJ	1.34E+0	1.95E-2	1.18E-1	1.48E+0	4.73E-3	2.62E-2	2.92E-4	-6.52E-1	8.55E-1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.34E+0	1.95E-2	1.18E-1	1.48E+0	4.73E-3	2.62E-2	2.92E-4	-6.52E-1	8.55E-1
PET	MJ	1.40E+0	1.97E-2	5.94E-1	2.01E+0	4.79E-3	6.14E-3	3.05E-4	-7.25E-1	1.30E+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	6.93E-4	2.04E-6	5.30E-5	7.49E-4	5.04E-7	2.15E-5	3.43E-7	-3.25E-4	4.46E-4

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	2.43E-7	4.60E-8	6.99E-8	3.59E-7	1.14E-8	4.24E-8	3.29E-10	-1.28E-7	2.85E-7
NHWD	kg	4.37E-3	1.11E-3	3.34E-4	5.80E-3	2.76E-4	1.42E-3	1.20E-3	-5.45E-4	8.16E-3
RWD	kg	9.38E-7	1.25E-7	5.29E-8	1.12E-6	3.03E-8	1.01E-7	1.82E-9	-1.81E-7	1.07E-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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