

Environmental Profile

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

Ecochain v3.5.71



Product: 3030703 - Hep20 Pb Demountable Pipe End Cap WT 28
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	3.65E-1	5.37E-3	2.72E-2	3.97E-1	1.21E-3	5.47E-2	5.37E-4	-1.83E-1	2.71E-1
GWP-f	kg CO2 eq	3.70E-1	5.37E-3	2.53E-2	4.01E-1	1.21E-3	3.81E-2	5.37E-4	-1.87E-1	2.54E-1
GWP-b	kg CO2 eq	-5.70E-3	3.10E-6	1.88E-3	-3.82E-3	7.36E-7	1.65E-2	5.40E-7	4.78E-3	1.75E-2
GWP-luluc	kg CO2 eq	7.76E-5	1.95E-6	1.04E-5	9.00E-5	4.29E-7	4.46E-6	1.05E-8	-7.42E-5	2.06E-5
ODP	kg CFC11 eq	4.53E-9	1.23E-9	2.83E-9	8.59E-9	2.79E-10	1.06E-9	1.47E-11	-2.39E-9	7.54E-9
AP	mol H+ eq	1.73E-3	3.57E-5	6.50E-5	1.83E-3	6.90E-6	3.97E-5	3.64E-7	-7.35E-4	1.14E-3
EP-fw	kg P eq	4.76E-6	4.33E-8	1.86E-7	4.99E-6	9.97E-9	1.78E-7	4.81E-10	-2.48E-6	2.70E-6
EP-m	kg N eq	3.24E-4	1.21E-5	1.34E-5	3.49E-4	2.47E-6	1.23E-5	6.89E-7	-1.53E-4	2.12E-4
EP-T	mol N eq	3.28E-3	1.33E-4	1.31E-4	3.54E-3	2.72E-5	1.34E-4	1.45E-6	-1.56E-3	2.15E-3
POCP	kg NMVOC eq	1.21E-3	3.77E-5	4.24E-5	1.29E-3	7.78E-6	4.00E-5	5.27E-7	-5.74E-4	7.65E-4
ADP-mm	kg Sb eq	5.64E-6	1.35E-7	2.85E-7	6.06E-6	3.13E-8	1.58E-7	3.55E-10	-1.06E-6	5.19E-6
ADP-f	MJ	5.02E+0	8.19E-2	3.54E-1	5.45E+0	1.86E-2	1.15E-1	1.08E-3	-2.57E+0	3.02E+0
WDP	m3 depriv.	1.13E-1	2.47E-4	3.62E-3	1.17E-1	5.71E-5	2.39E-3	4.99E-6	-6.00E-2	5.93E-2
PM	disease inc.	1.51E-8	4.73E-10	4.77E-10	1.61E-8	1.09E-10	5.84E-10	7.36E-12	-7.24E-9	9.54E-9
IR	kBq U-235 eq	1.71E-3	3.58E-4	3.09E-4	2.38E-3	8.13E-5	3.66E-4	5.21E-6	-7.47E-4	2.09E-3
ETP-fw	CTUe	2.10E+0	6.61E-2	3.41E-1	2.51E+0	1.51E-2	1.90E-1	2.28E-3	-9.24E-1	1.79E+0
HTP-c	CTUh	8.39E-11	2.40E-12	1.41E-11	1.00E-10	5.37E-13	1.58E-11	2.86E-14	-2.06E-11	9.62E-11
HTP-nc	CTUh	1.33E-9	7.81E-11	2.99E-10	1.71E-9	1.80E-11	2.15E-10	9.18E-13	-5.18E-10	1.42E-9
SQP	Pt	1.19E+0	6.83E-2	4.73E-2	1.30E+0	1.59E-2	-3.46E-1	2.74E-3	-1.91E+0	-9.37E-1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	2.17E-1	1.16E-3	6.81E-1	8.99E-1	2.67E-4	-5.82E-2	4.99E-5	-3.59E-1	4.83E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	2.17E-1	1.16E-3	6.81E-1	8.99E-1	2.67E-4	-5.82E-2	4.99E-5	-3.59E-1	4.83E-1
PENRE	MJ	5.41E+0	8.69E-2	3.88E-1	5.89E+0	1.97E-2	1.22E-1	1.15E-3	-2.78E+0	3.25E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	5.41E+0	8.69E-2	3.88E-1	5.89E+0	1.97E-2	1.22E-1	1.15E-3	-2.78E+0	3.25E+0
PET	MJ	5.63E+0	8.81E-2	1.07E+0	6.78E+0	2.00E-2	6.41E-2	1.20E-3	-3.13E+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	2.73E-3	9.11E-6	1.09E-4	2.85E-3	2.10E-6	7.58E-5	1.34E-6	-1.44E-3	1.48E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	7.99E-7	2.05E-7	3.63E-7	1.37E-6	4.76E-8	1.93E-7	1.29E-9	-4.35E-7	1.17E-6
NHWD	kg	1.80E-2	4.93E-3	1.70E-3	2.46E-2	1.15E-3	6.04E-3	4.71E-3	-2.41E-3	3.41E-2
RWD	kg	1.97E-6	5.57E-7	2.75E-7	2.80E-6	1.26E-7	4.70E-7	7.12E-9	-7.49E-7	2.65E-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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