

Environmental Profile

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

Ecochain v3.5.71



Product: 3029638 - Hep20 Barrier Pipe WT 15 L=100
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	3.05E+1	6.33E-1	3.76E+0	3.49E+1	1.96E-1	5.67E+0	8.55E-2	-1.63E+1	2.46E+1
GWP-f	kg CO2 eq	3.04E+1	6.33E-1	3.49E+0	3.45E+1	1.96E-1	5.68E+0	8.55E-2	-1.62E+1	2.43E+1
GWP-b	kg CO2 eq	1.32E-1	3.59E-4	2.71E-1	4.03E-1	1.19E-4	-7.76E-3	8.54E-5	-6.28E-2	3.33E-1
GWP-luluc	kg CO2 eq	2.29E-3	2.32E-4	1.29E-3	3.81E-3	6.95E-5	1.15E-3	1.66E-6	-1.59E-4	4.88E-3
ODP	kg CFC11 eq	2.92E-7	1.45E-7	4.00E-7	8.37E-7	4.52E-8	1.64E-7	2.33E-9	-2.40E-7	8.09E-7
AP	mol H+ eq	1.97E-1	4.43E-3	8.33E-3	2.10E-1	1.12E-3	6.46E-3	5.76E-5	-8.05E-2	1.37E-1
EP-fw	kg P eq	1.58E-4	5.07E-6	2.43E-5	1.87E-4	1.61E-6	3.37E-5	7.61E-8	-1.46E-5	2.08E-4
EP-m	kg N eq	2.32E-2	1.48E-3	1.78E-3	2.64E-2	4.00E-4	1.91E-3	1.06E-4	-1.07E-2	1.81E-2
EP-T	mol N eq	2.55E-1	1.63E-2	1.72E-2	2.89E-1	4.41E-3	2.09E-2	2.29E-4	-1.17E-1	1.97E-1
POCP	kg NMVOC eq	1.34E-1	4.58E-3	5.58E-3	1.44E-1	1.26E-3	6.49E-3	8.36E-5	-6.43E-2	8.77E-2
ADP-mm	kg Sb eq	2.34E-4	1.58E-5	3.51E-5	2.85E-4	5.08E-6	2.47E-5	5.63E-8	-3.67E-6	3.11E-4
ADP-f	MJ	6.76E+2	9.63E+0	4.92E+1	7.35E+2	3.01E+0	1.96E+1	1.71E-1	-3.55E+2	4.03E+2
WDP	m3 depriv.	6.07E+0	2.89E-2	4.81E-1	6.58E+0	9.24E-3	4.09E-1	7.91E-4	-1.60E+0	5.40E+0
PM	disease inc.	1.52E-6	5.53E-8	6.11E-8	1.64E-6	1.77E-8	1.02E-7	1.17E-9	-6.83E-7	1.07E-6
IR	kBq U-235 eq	1.39E-1	4.21E-2	4.17E-2	2.23E-1	1.32E-2	5.97E-2	8.25E-4	-1.68E-2	2.80E-1
ETP-fw	CTUe	9.25E+1	7.75E+0	4.28E+1	1.43E+2	2.45E+0	2.98E+1	3.52E-1	-1.10E+1	1.65E+2
HTP-c	CTUh	9.09E-9	2.83E-10	1.78E-9	1.12E-8	8.70E-11	2.75E-9	4.52E-12	-1.11E-9	1.29E-8
HTP-nc	CTUh	1.31E-7	9.14E-9	3.74E-8	1.78E-7	2.92E-9	3.51E-8	1.43E-10	-2.52E-8	1.91E-7
SQP	Pt	2.80E+1	7.96E+0	6.04E+0	4.20E+1	2.58E+0	1.55E+1	4.35E-1	-1.54E+0	5.90E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	6.87E+0	1.35E-1	8.29E+1	8.99E+1	4.32E-2	9.94E-1	7.85E-3	-1.64E+0	8.93E+1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	6.87E+0	1.35E-1	8.29E+1	8.99E+1	4.32E-2	9.94E-1	7.85E-3	-1.64E+0	8.93E+1
PENRE	MJ	7.26E+2	1.02E+1	5.40E+1	7.90E+2	3.20E+0	2.09E+1	1.82E-1	-3.83E+2	4.32E+2
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	7.26E+2	1.02E+1	5.40E+1	7.90E+2	3.20E+0	2.09E+1	1.82E-1	-3.83E+2	4.32E+2
PET	MJ	7.33E+2	1.04E+1	1.37E+2	8.80E+2	3.24E+0	2.19E+1	1.89E-1	-3.85E+2	5.21E+2
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	1.44E-1	1.06E-3	1.43E-2	1.59E-1	3.41E-4	1.20E-2	2.13E-4	-3.57E-2	1.36E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	7.25E-5	2.40E-5	5.24E-5	1.49E-4	7.70E-6	3.26E-5	2.04E-7	-4.69E-5	1.42E-4
NHWD	kg	2.12E+0	5.74E-1	2.44E-1	2.94E+0	1.87E-1	9.60E-1	7.46E-1	-1.67E-1	4.67E+0
RWD	kg	1.41E-4	6.56E-5	3.96E-5	2.46E-4	2.05E-5	7.48E-5	1.13E-6	-2.02E-5	3.22E-4
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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