

Environmental Profile

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

Ecochain v3.5.71



Product: 3029644 - Hep20 Barrier Pipe WT 15 L=50
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	1.54E+1	3.17E-1	1.88E+0	1.76E+1	9.82E-2	2.96E+0	4.28E-2	-8.22E+0	1.25E+1
GWP-f	kg CO2 eq	1.54E+1	3.17E-1	1.75E+0	1.74E+1	9.81E-2	2.97E+0	4.28E-2	-8.19E+0	1.23E+1
GWP-b	kg CO2 eq	6.23E-2	1.80E-4	1.35E-1	1.98E-1	5.96E-5	-3.89E-3	4.27E-5	-3.14E-2	1.63E-1
GWP-luluc	kg CO2 eq	1.27E-3	1.16E-4	6.47E-4	2.03E-3	3.47E-5	5.78E-4	8.28E-7	-8.05E-5	2.56E-3
ODP	kg CFC11 eq	1.51E-7	7.26E-8	2.00E-7	4.24E-7	2.26E-8	8.23E-8	1.16E-9	-1.28E-7	4.02E-7
AP	mol H+ eq	9.93E-2	2.22E-3	4.17E-3	1.06E-1	5.59E-4	3.25E-3	2.88E-5	-4.04E-2	6.91E-2
EP-fw	kg P eq	8.43E-5	2.54E-6	1.22E-5	9.90E-5	8.07E-7	1.69E-5	3.81E-8	-7.65E-6	1.09E-4
EP-m	kg N eq	1.17E-2	7.40E-4	8.92E-4	1.33E-2	2.00E-4	9.66E-4	5.30E-5	-5.39E-3	9.18E-3
EP-T	mol N eq	1.29E-1	8.16E-3	8.60E-3	1.46E-1	2.20E-3	1.06E-2	1.15E-4	-5.89E-2	9.98E-2
POCP	kg NMVOC eq	6.76E-2	2.29E-3	2.79E-3	7.27E-2	6.30E-4	3.27E-3	4.18E-5	-3.22E-2	4.44E-2
ADP-mm	kg Sb eq	1.19E-4	7.91E-6	1.75E-5	1.44E-4	2.54E-6	1.24E-5	2.82E-8	-1.89E-6	1.57E-4
ADP-f	MJ	3.42E+2	4.83E+0	2.46E+1	3.72E+2	1.51E+0	9.85E+0	8.56E-2	-1.79E+2	2.04E+2
WDP	m3 depriv.	3.15E+0	1.45E-2	2.41E-1	3.40E+0	4.62E-3	2.05E-1	3.96E-4	-8.08E-1	2.81E+0
PM	disease inc.	7.67E-7	2.77E-8	3.05E-8	8.25E-7	8.86E-9	5.11E-8	5.84E-10	-3.42E-7	5.43E-7
IR	kBq U-235 eq	7.39E-2	2.11E-2	2.09E-2	1.16E-1	6.58E-3	3.00E-2	4.13E-4	-8.78E-3	1.44E-1
ETP-fw	CTUe	4.86E+1	3.88E+0	2.14E+1	7.39E+1	1.22E+0	1.50E+1	1.76E-1	-5.75E+0	8.45E+1
HTP-c	CTUh	4.66E-9	1.42E-10	8.91E-10	5.70E-9	4.35E-11	1.39E-9	2.26E-12	-5.61E-10	6.57E-9
HTP-nc	CTUh	6.78E-8	4.58E-9	1.87E-8	9.11E-8	1.46E-9	1.77E-8	7.16E-11	-1.19E-8	9.85E-8
SQP	Pt	1.47E+1	3.99E+0	3.02E+0	2.17E+1	1.29E+0	7.75E+0	2.18E-1	-8.14E-1	3.01E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	3.61E+0	6.77E-2	4.15E+1	4.51E+1	2.16E-2	4.98E-1	3.93E-3	-8.26E-1	4.48E+1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	3.61E+0	6.77E-2	4.15E+1	4.51E+1	2.16E-2	4.98E-1	3.93E-3	-8.26E-1	4.48E+1
PENRE	MJ	3.68E+2	5.12E+0	2.70E+1	4.00E+2	1.60E+0	1.05E+1	9.08E-2	-1.93E+2	2.19E+2
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	3.68E+2	5.12E+0	2.70E+1	4.00E+2	1.60E+0	1.05E+1	9.08E-2	-1.93E+2	2.19E+2
PET	MJ	3.71E+2	5.19E+0	6.85E+1	4.45E+2	1.62E+0	1.10E+1	9.47E-2	-1.94E+2	2.64E+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	7.46E-2	5.33E-4	7.17E-3	8.23E-2	1.70E-4	6.01E-3	1.07E-4	-1.80E-2	7.06E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	3.75E-5	1.20E-5	2.62E-5	7.57E-5	3.85E-6	1.64E-5	1.02E-7	-2.55E-5	7.05E-5
NHWD	kg	1.08E+0	2.87E-1	1.22E-1	1.49E+0	9.34E-2	4.87E-1	3.73E-1	-8.43E-2	2.35E+0
RWD	kg	7.38E-5	3.29E-5	1.98E-5	1.26E-4	1.02E-5	3.76E-5	5.64E-7	-1.07E-5	1.64E-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



Ecochain Technologies BV
H.J.E. Wenckebachweg 123, 1096 AM Amsterdam, The Netherlands
<https://www.ecochain.com>
+31 20 3035 777