

Environmental Profile

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

Ecochain v3.5.71



Product: 3029641 - Hep20 Barrier Pipe WT 22 L=25
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	1.30E+1	2.69E-1	1.63E+0	1.49E+1	8.24E-2	2.53E+0	3.59E-2	-6.94E+0	1.06E+1
GWP-f	kg CO2 eq	1.30E+1	2.68E-1	1.51E+0	1.48E+1	8.23E-2	2.53E+0	3.59E-2	-6.91E+0	1.05E+1
GWP-b	kg CO2 eq	5.13E-2	1.52E-4	1.16E-1	1.67E-1	5.00E-5	-3.26E-3	3.58E-5	-2.64E-2	1.38E-1
GWP-luluc	kg CO2 eq	1.09E-3	9.85E-5	5.79E-4	1.77E-3	2.91E-5	4.85E-4	6.94E-7	-6.47E-5	2.22E-3
ODP	kg CFC11 eq	1.27E-7	6.15E-8	1.72E-7	3.61E-7	1.90E-8	6.92E-8	9.76E-10	-1.10E-7	3.40E-7
AP	mol H+ eq	8.41E-2	1.88E-3	3.69E-3	8.97E-2	4.69E-4	2.74E-3	2.42E-5	-3.40E-2	5.89E-2
EP-fw	kg P eq	7.21E-5	2.15E-6	1.07E-5	8.50E-5	6.77E-7	1.42E-5	3.19E-8	-6.34E-6	9.36E-5
EP-m	kg N eq	9.93E-3	6.26E-4	7.81E-4	1.13E-2	1.68E-4	8.14E-4	4.46E-5	-4.54E-3	7.82E-3
EP-T	mol N eq	1.09E-1	6.91E-3	7.57E-3	1.24E-1	1.85E-3	8.89E-3	9.62E-5	-4.96E-2	8.51E-2
POCP	kg NMVOC eq	5.73E-2	1.94E-3	2.45E-3	6.17E-2	5.28E-4	2.75E-3	3.50E-5	-2.72E-2	3.78E-2
ADP-mm	kg Sb eq	1.01E-4	6.69E-6	1.57E-5	1.23E-4	2.13E-6	1.04E-5	2.36E-8	-1.48E-6	1.34E-4
ADP-f	MJ	2.89E+2	4.09E+0	2.13E+1	3.14E+2	1.26E+0	8.27E+0	7.18E-2	-1.51E+2	1.73E+2
WDP	m3 depriv.	2.66E+0	1.23E-2	2.11E-1	2.88E+0	3.88E-3	1.72E-1	3.32E-4	-6.73E-1	2.39E+0
PM	disease inc.	6.50E-7	2.34E-8	2.70E-8	7.00E-7	7.43E-9	4.29E-8	4.90E-10	-2.88E-7	4.63E-7
IR	kBq U-235 eq	6.26E-2	1.78E-2	1.82E-2	9.86E-2	5.52E-3	2.52E-2	3.46E-4	-7.27E-3	1.22E-1
ETP-fw	CTUe	4.15E+1	3.29E+0	1.91E+1	6.39E+1	1.03E+0	1.26E+1	1.48E-1	-4.86E+0	7.28E+1
HTP-c	CTUh	3.98E-9	1.20E-10	7.92E-10	4.89E-9	3.65E-11	1.17E-9	1.90E-12	-4.72E-10	5.63E-9
HTP-nc	CTUh	5.77E-8	3.88E-9	1.67E-8	7.83E-8	1.22E-9	1.49E-8	6.01E-11	-9.76E-9	8.47E-8
SQP	Pt	1.26E+1	3.38E+0	2.68E+0	1.87E+1	1.08E+0	6.51E+0	1.82E-1	-6.85E-1	2.57E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	3.08E+0	5.73E-2	3.73E+1	4.05E+1	1.81E-2	4.18E-1	3.29E-3	-6.90E-1	4.02E+1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	3.08E+0	5.73E-2	3.73E+1	4.05E+1	1.81E-2	4.18E-1	3.29E-3	-6.90E-1	4.02E+1
PENRE	MJ	3.10E+2	4.34E+0	2.33E+1	3.38E+2	1.34E+0	8.81E+0	7.61E-2	-1.63E+2	1.86E+2
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	3.10E+2	4.34E+0	2.33E+1	3.38E+2	1.34E+0	8.81E+0	7.61E-2	-1.63E+2	1.86E+2
PET	MJ	3.13E+2	4.40E+0	6.06E+1	3.78E+2	1.36E+0	9.23E+0	7.94E-2	-1.63E+2	2.26E+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	6.31E-2	4.52E-4	6.30E-3	6.99E-2	1.43E-4	5.05E-3	8.94E-5	-1.51E-2	6.01E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	3.19E-5	1.02E-5	2.24E-5	6.45E-5	3.23E-6	1.38E-5	8.56E-8	-2.20E-5	5.95E-5
NHWD	kg	9.15E-1	2.43E-1	1.04E-1	1.26E+0	7.83E-2	4.11E-1	3.13E-1	-7.09E-2	1.99E+0
RWD	kg	6.23E-5	2.78E-5	1.69E-5	1.07E-4	8.59E-6	3.16E-5	4.73E-7	-8.93E-6	1.39E-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