

Environmental Profile

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

Ecochain v3.5.71



Product: 3029637 - Hep20 Barrier Pipe WT 10 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	1.59E+1	3.28E-1	2.03E+0	1.82E+1	1.04E-1	3.08E+0	4.52E-2	-8.61E+0	1.29E+1
GWP-f	kg CO2 eq	1.58E+1	3.28E-1	1.89E+0	1.80E+1	1.04E-1	3.08E+0	4.52E-2	-8.58E+0	1.27E+1
GWP-b	kg CO2 eq	6.44E-2	1.86E-4	1.44E-1	2.08E-1	6.29E-5	-4.10E-3	4.50E-5	-3.30E-2	1.71E-1
GWP-luluc	kg CO2 eq	1.25E-3	1.20E-4	7.34E-4	2.11E-3	3.67E-5	6.10E-4	8.73E-7	-9.22E-5	2.66E-3
ODP	kg CFC11 eq	1.45E-7	7.52E-8	2.14E-7	4.34E-7	2.39E-8	8.66E-8	1.23E-9	-1.33E-7	4.13E-7
AP	mol H+ eq	9.86E-2	2.30E-3	4.66E-3	1.06E-1	5.90E-4	3.42E-3	3.04E-5	-4.23E-2	6.73E-2
EP-fw	kg P eq	7.89E-5	2.63E-6	1.35E-5	9.50E-5	8.52E-7	1.78E-5	4.01E-8	-8.44E-6	1.05E-4
EP-m	kg N eq	1.20E-2	7.66E-4	9.81E-4	1.37E-2	2.11E-4	1.02E-3	5.55E-5	-5.64E-3	9.35E-3
EP-T	mol N eq	1.33E-1	8.45E-3	9.53E-3	1.51E-1	2.33E-3	1.11E-2	1.21E-4	-6.17E-2	1.02E-1
POCP	kg NMVOC eq	6.94E-2	2.38E-3	3.08E-3	7.48E-2	6.65E-4	3.44E-3	4.41E-5	-3.38E-2	4.52E-2
ADP-mm	kg Sb eq	1.36E-4	8.19E-6	2.00E-5	1.64E-4	2.68E-6	1.31E-5	2.97E-8	-2.27E-6	1.77E-4
ADP-f	MJ	3.56E+2	5.00E+0	2.66E+1	3.87E+2	1.59E+0	1.04E+1	9.03E-2	-1.88E+2	2.11E+2
WDP	m3 depriv.	3.10E+0	1.50E-2	2.65E-1	3.38E+0	4.88E-3	2.16E-1	4.17E-4	-8.68E-1	2.73E+0
PM	disease inc.	7.82E-7	2.87E-8	3.42E-8	8.45E-7	9.35E-9	5.38E-8	6.16E-10	-3.58E-7	5.50E-7
IR	kBq U-235 eq	7.00E-2	2.18E-2	2.28E-2	1.15E-1	6.95E-3	3.16E-2	4.35E-4	-9.72E-3	1.44E-1
ETP-fw	CTUe	4.63E+1	4.02E+0	2.42E+1	7.45E+1	1.29E+0	1.57E+1	1.84E-1	-6.14E+0	8.56E+1
HTP-c	CTUh	4.15E-9	1.47E-10	1.00E-9	5.30E-9	4.59E-11	1.46E-9	2.38E-12	-5.92E-10	6.22E-9
HTP-nc	CTUh	6.52E-8	4.74E-9	2.12E-8	9.11E-8	1.54E-9	1.86E-8	7.53E-11	-1.27E-8	9.86E-8
SQP	Pt	1.39E+1	4.13E+0	3.38E+0	2.14E+1	1.36E+0	8.17E+0	2.30E-1	-8.76E-1	3.03E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	3.47E+0	7.01E-2	4.75E+1	5.10E+1	2.28E-2	5.25E-1	4.14E-3	-8.80E-1	5.07E+1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	3.47E+0	7.01E-2	4.75E+1	5.10E+1	2.28E-2	5.25E-1	4.14E-3	-8.80E-1	5.07E+1
PENRE	MJ	3.82E+2	5.31E+0	2.91E+1	4.17E+2	1.69E+0	1.11E+1	9.58E-2	-2.03E+2	2.27E+2
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	3.82E+2	5.31E+0	2.91E+1	4.17E+2	1.69E+0	1.11E+1	9.58E-2	-2.03E+2	2.27E+2
PET	MJ	3.86E+2	5.38E+0	7.66E+1	4.68E+2	1.71E+0	1.16E+1	9.99E-2	-2.04E+2	2.77E+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	7.27E-2	5.52E-4	7.94E-3	8.12E-2	1.80E-4	6.33E-3	1.12E-4	-1.91E-2	6.87E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	3.86E-5	1.24E-5	2.78E-5	7.89E-5	4.07E-6	1.72E-5	1.08E-7	-2.64E-5	7.39E-5
NHWD	kg	9.40E-1	2.98E-1	1.30E-1	1.37E+0	9.85E-2	5.11E-1	3.94E-1	-8.90E-2	2.28E+0
RWD	kg	6.95E-5	3.40E-5	2.10E-5	1.25E-4	1.08E-5	3.96E-5	5.95E-7	-1.16E-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



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