

Environmental Profile

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

Ecochain v3.5.71



Product: 3029634 - Hep20 Barrier Pipe W 15 L=3
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	8.99E-1	1.87E-2	1.13E-1	1.03E+0	5.85E-3	1.64E-1	2.55E-3	-4.80E-1	7.23E-1
GWP-f	kg CO2 eq	8.95E-1	1.87E-2	1.05E-1	1.02E+0	5.84E-3	1.65E-1	2.55E-3	-4.79E-1	7.13E-1
GWP-b	kg CO2 eq	4.05E-3	1.06E-5	8.13E-3	1.22E-2	3.55E-6	-2.31E-4	2.54E-6	-1.87E-3	1.01E-2
GWP-luluc	kg CO2 eq	6.45E-5	6.85E-6	3.94E-5	1.11E-4	2.07E-6	3.43E-5	4.93E-8	-4.96E-6	1.42E-4
ODP	kg CFC11 eq	8.58E-9	4.27E-9	1.20E-8	2.49E-8	1.35E-9	4.86E-9	6.93E-11	-6.85E-9	2.43E-8
AP	mol H+ eq	5.81E-3	1.31E-4	2.53E-4	6.19E-3	3.33E-5	1.91E-4	1.71E-6	-2.39E-3	4.03E-3
EP-fw	kg P eq	4.54E-6	1.50E-7	7.37E-7	5.42E-6	4.81E-8	1.00E-6	2.27E-9	-4.32E-7	6.04E-6
EP-m	kg N eq	6.82E-4	4.36E-5	5.39E-5	7.79E-4	1.19E-5	5.66E-5	3.14E-6	-3.18E-4	5.33E-4
EP-T	mol N eq	7.51E-3	4.81E-4	5.21E-4	8.51E-3	1.31E-4	6.18E-4	6.83E-6	-3.47E-3	5.80E-3
POCP	kg NMVOC eq	3.94E-3	1.35E-4	1.69E-4	4.25E-3	3.75E-5	1.92E-4	2.49E-6	-1.90E-3	2.57E-3
ADP-mm	kg Sb eq	6.99E-6	4.65E-7	1.07E-6	8.53E-6	1.51E-7	7.34E-7	1.68E-9	-1.15E-7	9.30E-6
ADP-f	MJ	1.99E+1	2.84E-1	1.48E+0	2.17E+1	8.97E-2	5.84E-1	5.10E-3	-1.05E+1	1.19E+1
WDP	m3 depriv.	1.78E-1	8.52E-4	1.45E-2	1.93E-1	2.75E-4	1.22E-2	2.36E-5	-4.79E-2	1.58E-1
PM	disease inc.	4.48E-8	1.63E-9	1.85E-9	4.83E-8	5.27E-10	3.02E-9	3.48E-11	-2.03E-8	3.16E-8
IR	kBq U-235 eq	4.04E-3	1.24E-3	1.26E-3	6.55E-3	3.92E-4	1.77E-3	2.46E-5	-5.01E-4	8.23E-3
ETP-fw	CTUe	2.67E+0	2.29E-1	1.30E+0	4.20E+0	7.28E-2	8.85E-1	1.04E-2	-3.18E-1	4.85E+0
HTP-c	CTUh	2.64E-10	8.35E-12	5.41E-11	3.26E-10	2.59E-12	8.13E-11	1.34E-13	-3.28E-11	3.77E-10
HTP-nc	CTUh	3.82E-9	2.70E-10	1.14E-9	5.23E-9	8.68E-11	1.04E-9	4.26E-12	-7.96E-10	5.56E-9
SQP	Pt	8.14E-1	2.35E-1	1.83E-1	1.23E+0	7.67E-2	4.59E-1	1.30E-2	-4.48E-2	1.74E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.99E-1	3.98E-3	2.53E+0	2.73E+0	1.29E-3	2.95E-2	2.34E-4	-4.90E-2	2.71E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.99E-1	3.98E-3	2.53E+0	2.73E+0	1.29E-3	2.95E-2	2.34E-4	-4.90E-2	2.71E+0
PENRE	MJ	2.14E+1	3.02E-1	1.63E+0	2.33E+1	9.52E-2	6.22E-1	5.41E-3	-1.13E+1	1.27E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	2.14E+1	3.02E-1	1.63E+0	2.33E+1	9.52E-2	6.22E-1	5.41E-3	-1.13E+1	1.27E+1
PET	MJ	2.16E+1	3.06E-1	4.15E+0	2.61E+1	9.65E-2	6.51E-1	5.64E-3	-1.14E+1	1.54E+1
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	4.21E-3	3.14E-5	4.34E-4	4.67E-3	1.02E-5	3.55E-4	6.35E-6	-1.06E-3	3.98E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	2.13E-6	7.07E-7	1.57E-6	4.41E-6	2.29E-7	9.66E-7	6.08E-9	-1.31E-6	4.29E-6
NHWD	kg	6.23E-2	1.69E-2	7.33E-3	8.66E-2	5.56E-3	2.83E-2	2.22E-2	-4.92E-3	1.38E-1
RWD	kg	4.11E-6	1.93E-6	1.19E-6	7.23E-6	6.10E-7	2.22E-6	3.36E-8	-5.93E-7	9.50E-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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