

Environmental Profile

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

Ecochain v3.5.71



Product: 3011285 - Hep20 Pb Pipe BI Conduit 15 Barrier 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	1.37E+1	3.48E-1	1.90E+0	1.60E+1	1.01E-1	1.01E+1	4.40E-2	-1.18E+1	1.44E+1
GWP-f	kg CO2 eq	1.74E+1	3.48E-1	1.77E+0	1.95E+1	1.01E-1	3.40E+0	4.40E-2	-8.84E+0	1.42E+1
GWP-b	kg CO2 eq	-3.67E+0	1.98E-4	1.37E-1	-3.54E+0	6.12E-5	6.67E+0	4.38E-5	-3.00E+0	1.39E-1
GWP-luluc	kg CO2 eq	4.42E-3	1.27E-4	6.52E-4	5.20E-3	3.57E-5	-9.76E-4	8.49E-7	-3.04E-4	3.95E-3
ODP	kg CFC11 eq	2.83E-7	7.97E-8	2.03E-7	5.65E-7	2.32E-8	3.49E-8	1.20E-9	-1.87E-7	4.37E-7
AP	mol H+ eq	1.09E-1	2.39E-3	4.20E-3	1.16E-1	5.74E-4	6.62E-4	2.95E-5	-4.14E-2	7.59E-2
EP-fw	kg P eq	1.60E-4	2.79E-6	1.23E-5	1.75E-4	8.29E-7	-3.88E-6	3.90E-8	-1.16E-5	1.61E-4
EP-m	kg N eq	1.39E-2	8.02E-4	9.02E-4	1.56E-2	2.05E-4	3.02E-4	5.34E-5	-5.67E-3	1.05E-2
EP-T	mol N eq	1.53E-1	8.85E-3	8.69E-3	1.71E-1	2.26E-3	3.05E-3	1.18E-4	-6.24E-2	1.14E-1
POCP	kg NMVOC eq	7.74E-2	2.49E-3	2.82E-3	8.27E-2	6.47E-4	1.89E-4	4.29E-5	-3.33E-2	5.02E-2
ADP-mm	kg Sb eq	1.43E-4	8.70E-6	1.77E-5	1.69E-4	2.61E-6	5.06E-6	2.89E-8	-3.15E-6	1.74E-4
ADP-f	MJ	3.91E+2	5.30E+0	2.49E+1	4.21E+2	1.55E+0	2.39E+0	8.79E-2	-1.92E+2	2.33E+2
WDP	m3 depriv.	4.08E+0	1.59E-2	2.43E-1	4.34E+0	4.75E-3	8.29E-2	4.06E-4	-9.17E-1	3.51E+0
PM	disease inc.	8.96E-7	3.05E-8	3.08E-8	9.57E-7	9.10E-9	-6.57E-9	5.99E-10	-3.51E-7	6.10E-7
IR	kBq U-235 eq	1.50E-1	2.31E-2	2.11E-2	1.94E-1	6.76E-3	9.83E-3	4.23E-4	-1.45E-2	1.96E-1
ETP-fw	CTUe	8.26E+1	4.27E+0	2.16E+1	1.08E+2	1.26E+0	4.38E+0	1.78E-1	-9.84E+0	1.04E+2
HTP-c	CTUh	6.71E-9	1.56E-10	8.98E-10	7.77E-9	4.47E-11	2.92E-10	2.31E-12	-6.54E-10	7.45E-9
HTP-nc	CTUh	9.22E-8	5.04E-9	1.89E-8	1.16E-7	1.50E-9	9.52E-9	7.28E-11	-1.43E-8	1.13E-7
SQP	Pt	3.30E+2	4.39E+0	3.05E+0	3.37E+2	1.32E+0	-2.40E+2	2.23E-1	-1.35E+1	8.59E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	5.00E+1	7.44E-2	4.17E+1	9.19E+1	2.22E-2	-3.54E+1	4.01E-3	-3.97E+0	5.25E+1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	5.00E+1	7.44E-2	4.17E+1	9.19E+1	2.22E-2	-3.54E+1	4.01E-3	-3.97E+0	5.25E+1
PENRE	MJ	4.19E+2	5.63E+0	2.73E+1	4.52E+2	1.64E+0	2.54E+0	9.32E-2	-2.07E+2	2.49E+2
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	4.19E+2	5.63E+0	2.73E+1	4.52E+2	1.64E+0	2.54E+0	9.32E-2	-2.07E+2	2.49E+2
PET	MJ	4.69E+2	5.70E+0	6.91E+1	5.44E+2	1.66E+0	-3.29E+1	9.72E-2	-2.11E+2	3.02E+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	9.81E-2	5.87E-4	7.24E-3	1.06E-1	1.75E-4	2.40E-3	1.09E-4	-1.99E-2	8.88E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	8.15E-5	1.32E-5	2.66E-5	1.21E-4	3.96E-6	-1.62E-6	1.05E-7	-3.68E-5	8.69E-5
NHWD	kg	1.36E+0	3.17E-1	1.24E-1	1.80E+0	9.59E-2	4.18E-1	3.83E-1	-9.59E-2	2.60E+0
RWD	kg	1.48E-4	3.61E-5	2.01E-5	2.04E-4	1.05E-5	1.42E-5	5.79E-7	-1.70E-5	2.13E-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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