

Environmental Profile

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

Ecochain v3.5.71



Product: 4013649 - Hep20 Pb Pipe Rd 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	1.40E+1	3.49E-1	2.36E-1	1.46E+1	1.01E-1	1.03E+1	4.40E-2	-1.20E+1	1.30E+1
GWP-f	kg CO2 eq	1.77E+1	3.49E-1	2.36E-1	1.82E+1	1.01E-1	3.59E+0	4.40E-2	-8.96E+0	1.30E+1
GWP-b	kg CO2 eq	-3.68E+0	1.99E-4	-4.81E-4	-3.68E+0	6.12E-5	6.67E+0	4.38E-5	-3.00E+0	-5.16E-3
GWP-luluc	kg CO2 eq	4.60E-3	1.28E-4	3.00E-4	5.03E-3	3.57E-5	-9.75E-4	8.49E-7	-3.10E-4	3.78E-3
ODP	kg CFC11 eq	2.89E-7	7.99E-8	1.10E-8	3.80E-7	2.32E-8	3.54E-8	1.20E-9	-2.00E-7	2.40E-7
AP	mol H+ eq	1.11E-1	2.40E-3	1.51E-3	1.14E-1	5.74E-4	6.94E-4	2.95E-5	-4.15E-2	7.42E-2
EP-fw	kg P eq	1.68E-4	2.80E-6	3.61E-6	1.74E-4	8.29E-7	-3.83E-6	3.90E-8	-1.19E-5	1.59E-4
EP-m	kg N eq	1.41E-2	8.04E-4	2.16E-4	1.51E-2	2.05E-4	3.16E-4	5.34E-5	-5.70E-3	9.97E-3
EP-T	mol N eq	1.56E-1	8.88E-3	2.54E-3	1.67E-1	2.26E-3	3.20E-3	1.18E-4	-6.28E-2	1.10E-1
POCP	kg NMVOC eq	7.83E-2	2.50E-3	7.76E-4	8.16E-2	6.47E-4	2.31E-4	4.29E-5	-3.34E-2	4.91E-2
ADP-mm	kg Sb eq	1.45E-4	8.73E-6	8.76E-6	1.63E-4	2.61E-6	5.11E-6	2.89E-8	-3.23E-6	1.67E-4
ADP-f	MJ	3.97E+2	5.31E+0	2.64E+0	4.05E+2	1.55E+0	2.43E+0	8.79E-2	-1.94E+2	2.15E+2
WDP	m3 depriv.	4.25E+0	1.60E-2	5.95E-2	4.33E+0	4.75E-3	8.36E-2	4.06E-4	-9.28E-1	3.49E+0
PM	disease inc.	9.05E-7	3.06E-8	1.10E-8	9.46E-7	9.10E-9	-6.22E-9	5.99E-10	-3.51E-7	5.99E-7
IR	kBq U-235 eq	1.56E-1	2.32E-2	4.00E-3	1.83E-1	6.76E-3	9.97E-3	4.23E-4	-1.52E-2	1.85E-1
ETP-fw	CTUe	8.57E+1	4.28E+0	9.20E+0	9.92E+1	1.26E+0	4.46E+0	1.78E-1	-1.00E+1	9.50E+1
HTP-c	CTUh	6.78E-9	1.56E-10	3.60E-10	7.30E-9	4.47E-11	3.17E-10	2.31E-12	-6.64E-10	7.00E-9
HTP-nc	CTUh	9.41E-8	5.05E-9	8.23E-9	1.07E-7	1.50E-9	9.74E-9	7.28E-11	-1.45E-8	1.04E-7
SQP	Pt	3.31E+2	4.41E+0	1.13E+0	3.37E+2	1.32E+0	-2.40E+2	2.23E-1	-1.35E+1	8.50E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	5.03E+1	7.47E-2	2.22E+1	7.26E+1	2.22E-2	-3.54E+1	4.01E-3	-3.98E+0	3.33E+1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	5.03E+1	7.47E-2	2.22E+1	7.26E+1	2.22E-2	-3.54E+1	4.01E-3	-3.98E+0	3.33E+1
PENRE	MJ	4.26E+2	5.64E+0	2.80E+0	4.34E+2	1.64E+0	2.58E+0	9.32E-2	-2.10E+2	2.29E+2
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	4.26E+2	5.64E+0	2.80E+0	4.34E+2	1.64E+0	2.58E+0	9.32E-2	-2.10E+2	2.29E+2
PET	MJ	4.76E+2	5.72E+0	2.50E+1	5.07E+2	1.66E+0	-3.28E+1	9.72E-2	-2.14E+2	2.62E+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	1.02E-1	5.89E-4	2.06E-3	1.05E-1	1.75E-4	2.44E-3	1.09E-4	-2.01E-2	8.75E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	8.27E-5	1.33E-5	2.69E-8	9.60E-5	3.96E-6	-1.50E-6	1.05E-7	-3.93E-5	5.92E-5
NHWD	kg	1.38E+0	3.18E-1	5.88E-4	1.70E+0	9.59E-2	4.29E-1	3.83E-1	-9.69E-2	2.51E+0
RWD	kg	1.53E-4	3.62E-5	2.02E-8	1.90E-4	1.05E-5	1.44E-5	5.79E-7	-1.79E-5	1.97E-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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