

Environmental Profile

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

Ecochain v3.5.71



Product: 4013650 - Hep20 Pb Pipe Rd Conduit 22 Barr L=50
Unit: 1 piece
Manufacturer: Wavin - UK - Doncaster - Verified

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



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

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	2.38E+1	5.69E-1	4.44E-1	2.48E+1	1.67E-1	1.25E+1	7.29E-2	-1.76E+1	1.99E+1
GWP-f	kg CO2 eq	2.78E+1	5.68E-1	4.45E-1	2.88E+1	1.67E-1	5.17E+0	7.29E-2	-1.43E+1	1.99E+1
GWP-b	kg CO2 eq	-4.00E+0	3.24E-4	-9.33E-4	-4.00E+0	1.02E-4	7.35E+0	7.27E-5	-3.32E+0	2.52E-2
GWP-luluc	kg CO2 eq	5.27E-3	2.08E-4	5.65E-4	6.04E-3	5.92E-5	-7.47E-4	1.41E-6	-3.67E-4	4.99E-3
ODP	kg CFC11 eq	3.82E-7	1.30E-7	2.07E-8	5.33E-7	3.85E-8	8.49E-8	1.98E-9	-2.61E-7	3.97E-7
AP	mol H+ eq	1.77E-1	3.94E-3	2.84E-3	1.84E-1	9.52E-4	2.55E-3	4.90E-5	-6.89E-2	1.19E-1
EP-fw	kg P eq	2.11E-4	4.56E-6	6.79E-6	2.23E-4	1.38E-6	5.33E-6	6.48E-8	-1.61E-5	2.13E-4
EP-m	kg N eq	2.18E-2	1.32E-3	4.06E-4	2.36E-2	3.41E-4	8.68E-4	8.96E-5	-9.31E-3	1.55E-2
EP-T	mol N eq	2.41E-1	1.45E-2	4.77E-3	2.60E-1	3.75E-3	9.19E-3	1.95E-4	-1.02E-1	1.71E-1
POCP	kg NMVOC eq	1.23E-1	4.09E-3	1.46E-3	1.29E-1	1.07E-3	2.02E-3	7.12E-5	-5.52E-2	7.69E-2
ADP-mm	kg Sb eq	2.23E-4	1.42E-5	1.65E-5	2.53E-4	4.32E-6	1.26E-5	4.80E-8	-4.13E-6	2.66E-4
ADP-f	MJ	6.18E+2	8.66E+0	4.96E+0	6.32E+2	2.57E+0	8.21E+0	1.46E-1	-3.11E+2	3.31E+2
WDP	m3 depriv.	6.02E+0	2.60E-2	1.12E-1	6.15E+0	7.88E-3	2.08E-1	6.74E-4	-1.44E+0	4.93E+0
PM	disease inc.	1.42E-6	4.98E-8	2.08E-8	1.49E-6	1.51E-8	2.15E-8	9.95E-10	-5.84E-7	9.47E-7
IR	kBq U-235 eq	1.94E-1	3.78E-2	7.52E-3	2.40E-1	1.12E-2	2.78E-2	7.03E-4	-1.94E-2	2.60E-1
ETP-fw	CTUe	1.13E+2	6.97E+0	1.73E+1	1.38E+2	2.08E+0	1.33E+1	2.98E-1	-1.36E+1	1.40E+2
HTP-c	CTUh	9.91E-9	2.54E-10	6.77E-10	1.08E-8	7.42E-11	1.08E-9	3.84E-12	-1.03E-9	1.10E-8
HTP-nc	CTUh	1.36E-7	8.22E-9	1.55E-8	1.60E-7	2.48E-9	2.03E-8	1.21E-10	-2.34E-8	1.60E-7
SQP	Pt	3.71E+2	7.17E+0	2.13E+0	3.80E+2	2.20E+0	-2.60E+2	3.71E-1	-1.52E+1	1.08E+2
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	5.68E+1	1.22E-1	4.18E+1	9.87E+1	3.68E-2	-3.87E+1	6.68E-3	-4.82E+0	5.52E+1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	5.68E+1	1.22E-1	4.18E+1	9.87E+1	3.68E-2	-3.87E+1	6.68E-3	-4.82E+0	5.52E+1
PENRE	MJ	6.64E+2	9.19E+0	5.26E+0	6.78E+2	2.72E+0	8.74E+0	1.55E-1	-3.36E+2	3.54E+2
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	6.64E+2	9.19E+0	5.26E+0	6.78E+2	2.72E+0	8.74E+0	1.55E-1	-3.36E+2	3.54E+2
PET	MJ	7.21E+2	9.31E+0	4.71E+1	7.77E+2	2.76E+0	-3.00E+1	1.61E-1	-3.41E+2	4.09E+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	1.45E-1	9.58E-4	3.88E-3	1.49E-1	2.90E-4	6.02E-3	1.82E-4	-3.17E-2	1.24E-1

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.07E-4	2.16E-5	4.54E-8	1.29E-4	6.56E-6	7.43E-6	1.74E-7	-5.11E-5	9.22E-5
NHWD	kg	2.10E+0	5.17E-1	1.08E-3	2.62E+0	1.59E-1	7.25E-1	6.36E-1	-1.52E-1	3.98E+0
RWD	kg	1.95E-4	5.89E-5	3.41E-8	2.54E-4	1.75E-5	3.68E-5	9.61E-7	-2.30E-5	2.86E-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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