

Environmental Profile

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

Ecochain v3.5.71



Product: 3029642 - Hep20 Barrier Pipe WT 28 L=25
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	2.13E+1	4.45E-1	2.61E+0	2.44E+1	1.34E-1	4.01E+0	5.85E-2	-1.13E+1	1.73E+1
GWP-f	kg CO2 eq	2.12E+1	4.45E-1	2.42E+0	2.41E+1	1.34E-1	4.02E+0	5.85E-2	-1.12E+1	1.71E+1
GWP-b	kg CO2 eq	8.85E-2	2.52E-4	1.86E-1	2.75E-1	8.15E-5	-5.31E-3	5.85E-5	-4.33E-2	2.26E-1
GWP-luluc	kg CO2 eq	1.62E-3	1.63E-4	9.14E-4	2.70E-3	4.75E-5	7.91E-4	1.13E-6	-9.54E-5	3.44E-3
ODP	kg CFC11 eq	1.99E-7	1.02E-7	2.76E-7	5.77E-7	3.09E-8	1.13E-7	1.59E-9	-1.71E-7	5.51E-7
AP	mol H+ eq	1.38E-1	3.12E-3	5.85E-3	1.47E-1	7.65E-4	4.44E-3	3.94E-5	-5.57E-2	9.69E-2
EP-fw	kg P eq	1.11E-4	3.57E-6	1.70E-5	1.31E-4	1.10E-6	2.31E-5	5.21E-8	-9.46E-6	1.46E-4
EP-m	kg N eq	1.62E-2	1.04E-3	1.24E-3	1.85E-2	2.74E-4	1.32E-3	7.31E-5	-7.42E-3	1.28E-2
EP-T	mol N eq	1.79E-1	1.15E-2	1.20E-2	2.02E-1	3.02E-3	1.44E-2	1.57E-4	-8.11E-2	1.39E-1
POCP	kg NMVOC eq	9.40E-2	3.22E-3	3.90E-3	1.01E-1	8.62E-4	4.47E-3	5.72E-5	-4.45E-2	6.20E-2
ADP-mm	kg Sb eq	1.60E-4	1.11E-5	2.48E-5	1.96E-4	3.47E-6	1.70E-5	3.86E-8	-2.01E-6	2.14E-4
ADP-f	MJ	4.70E+2	6.78E+0	3.41E+1	5.10E+2	2.06E+0	1.35E+1	1.17E-1	-2.45E+2	2.81E+2
WDP	m3 depriv.	4.17E+0	2.03E-2	3.35E-1	4.53E+0	6.32E-3	2.81E-1	5.41E-4	-1.07E+0	3.74E+0
PM	disease inc.	1.07E-6	3.89E-8	4.29E-8	1.15E-6	1.21E-8	6.98E-8	7.99E-10	-4.72E-7	7.60E-7
IR	kBq U-235 eq	9.50E-2	2.96E-2	2.90E-2	1.54E-1	9.01E-3	4.10E-2	5.65E-4	-1.08E-2	1.93E-1
ETP-fw	CTUe	6.49E+1	5.45E+0	3.02E+1	1.01E+2	1.67E+0	2.05E+1	2.43E-1	-7.49E+0	1.15E+2
HTP-c	CTUh	6.40E-9	1.99E-10	1.25E-9	7.86E-9	5.95E-11	1.90E-9	3.09E-12	-7.61E-10	9.06E-9
HTP-nc	CTUh	9.18E-8	6.43E-9	2.64E-8	1.25E-7	1.99E-9	2.42E-8	9.84E-11	-1.67E-8	1.34E-7
SQP	Pt	1.98E+1	5.60E+0	4.25E+0	2.96E+1	1.76E+0	1.06E+1	2.98E-1	-1.04E+0	4.12E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	4.83E+0	9.50E-2	5.88E+1	6.37E+1	2.96E-2	6.82E-1	5.38E-3	-1.11E+0	6.34E+1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	4.83E+0	9.50E-2	5.88E+1	6.37E+1	2.96E-2	6.82E-1	5.38E-3	-1.11E+0	6.34E+1
PENRE	MJ	5.04E+2	7.20E+0	3.73E+1	5.49E+2	2.19E+0	1.43E+1	1.24E-1	-2.64E+2	3.01E+2
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	5.04E+2	7.20E+0	3.73E+1	5.49E+2	2.19E+0	1.43E+1	1.24E-1	-2.64E+2	3.01E+2
PET	MJ	5.09E+2	7.29E+0	9.62E+1	6.13E+2	2.22E+0	1.50E+1	1.30E-1	-2.65E+2	3.65E+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	9.95E-2	7.49E-4	1.00E-2	1.10E-1	2.33E-4	8.22E-3	1.46E-4	-2.42E-2	9.47E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	4.98E-5	1.69E-5	3.60E-5	1.03E-4	5.27E-6	2.24E-5	1.40E-7	-3.38E-5	9.66E-5
NHWD	kg	1.49E+0	4.04E-1	1.68E-1	2.06E+0	1.28E-1	6.64E-1	5.11E-1	-1.14E-1	3.25E+0
RWD	kg	9.55E-5	4.61E-5	2.72E-5	1.69E-4	1.40E-5	5.14E-5	7.72E-7	-1.34E-5	2.22E-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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