

Environmental Profile

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

Ecochain v3.5.71



Product: 3030671 - Hep20 Pb Branch Red Tee 90° W 28x28x15
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	8.49E-1	1.33E-2	5.67E-2	9.19E-1	2.82E-3	1.25E-1	1.26E-3	-4.25E-1	6.23E-1
GWP-f	kg CO2 eq	8.60E-1	1.32E-2	5.25E-2	9.26E-1	2.82E-3	9.19E-2	1.26E-3	-4.35E-1	5.87E-1
GWP-b	kg CO2 eq	-1.12E-2	7.66E-6	4.20E-3	-7.01E-3	1.71E-6	3.31E-2	1.26E-6	9.45E-3	3.55E-2
GWP-luluc	kg CO2 eq	1.63E-4	4.81E-6	1.81E-5	1.86E-4	9.98E-7	1.11E-5	2.45E-8	-1.49E-4	4.91E-5
ODP	kg CFC11 eq	1.09E-8	3.04E-9	6.12E-9	2.01E-8	6.50E-10	2.43E-9	3.43E-11	-5.47E-9	1.78E-8
AP	mol H+ eq	4.01E-3	8.82E-5	1.19E-4	4.21E-3	1.61E-5	9.23E-5	8.51E-7	-1.69E-3	2.63E-3
EP-fw	kg P eq	1.10E-5	1.07E-7	3.53E-7	1.14E-5	2.32E-8	4.21E-7	1.13E-9	-5.50E-6	6.39E-6
EP-m	kg N eq	7.49E-4	2.99E-5	2.62E-5	8.05E-4	5.74E-6	2.86E-5	1.61E-6	-3.52E-4	4.89E-4
EP-T	mol N eq	7.58E-3	3.30E-4	2.50E-4	8.16E-3	6.33E-5	3.11E-4	3.39E-6	-3.58E-3	4.96E-3
POCP	kg NMVOC eq	2.81E-3	9.30E-5	8.12E-5	2.98E-3	1.81E-5	9.29E-5	1.23E-6	-1.32E-3	1.77E-3
ADP-mm	kg Sb eq	1.44E-5	3.34E-7	4.85E-7	1.52E-5	7.29E-8	3.63E-7	8.32E-10	-2.51E-6	1.31E-5
ADP-f	MJ	1.17E+1	2.02E-1	7.45E-1	1.26E+1	4.33E-2	2.68E-1	2.53E-3	-5.94E+0	6.99E+0
WDP	m3 depriv.	2.64E-1	6.10E-4	7.05E-3	2.72E-1	1.33E-4	5.61E-3	1.17E-5	-1.35E-1	1.42E-1
PM	disease inc.	3.50E-8	1.17E-9	8.73E-10	3.70E-8	2.54E-10	1.36E-9	1.72E-11	-1.65E-8	2.22E-8
IR	kBq U-235 eq	4.14E-3	8.83E-4	6.20E-4	5.64E-3	1.89E-4	8.47E-4	1.22E-5	-1.54E-3	5.14E-3
ETP-fw	CTUe	4.53E+0	1.63E-1	6.03E-1	5.29E+0	3.51E-2	4.45E-1	5.33E-3	-1.89E+0	3.89E+0
HTP-c	CTUh	1.93E-10	5.92E-12	2.52E-11	2.24E-10	1.25E-12	3.68E-11	6.70E-14	-4.60E-11	2.16E-10
HTP-nc	CTUh	3.07E-9	1.93E-10	5.25E-10	3.79E-9	4.19E-11	4.99E-10	2.15E-12	-1.14E-9	3.19E-9
SQP	Pt	2.46E+0	1.69E-1	8.60E-2	2.72E+0	3.70E-2	-6.62E-1	6.42E-3	-3.83E+0	-1.74E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	4.53E-1	2.85E-3	1.14E+0	1.59E+0	6.21E-4	-1.14E-1	1.17E-4	-7.21E-1	7.58E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	4.53E-1	2.85E-3	1.14E+0	1.59E+0	6.21E-4	-1.14E-1	1.17E-4	-7.21E-1	7.58E-1
PENRE	MJ	1.26E+1	2.15E-1	8.18E-1	1.36E+1	4.59E-2	2.85E-1	2.68E-3	-6.42E+0	7.53E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.26E+1	2.15E-1	8.18E-1	1.36E+1	4.59E-2	2.85E-1	2.68E-3	-6.42E+0	7.53E+0
PET	MJ	1.30E+1	2.17E-1	1.95E+0	1.52E+1	4.66E-2	1.71E-1	2.80E-3	-7.14E+0	8.29E+0
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	6.36E-3	2.25E-5	2.08E-4	6.59E-3	4.90E-6	1.81E-4	3.15E-6	-3.24E-3	3.54E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.82E-6	5.07E-7	8.11E-7	3.13E-6	1.11E-7	4.52E-7	3.01E-9	-9.95E-7	2.70E-6
NHWD	kg	4.12E-2	1.22E-2	3.78E-3	5.71E-2	2.68E-3	1.40E-2	1.10E-2	-5.35E-3	7.95E-2
RWD	kg	4.82E-6	1.38E-6	6.13E-7	6.81E-6	2.94E-7	1.08E-6	1.67E-8	-1.56E-6	6.64E-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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