

Environmental Profile

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

Ecochain v3.5.71



Product: 3030672 - Hep20 Pb Branch Red Tee 90° W 28x28x22
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	9.71E-1	1.52E-2	6.46E-2	1.05E+0	3.27E-3	1.37E-1	1.45E-3	-4.87E-1	7.05E-1
GWP-f	kg CO2 eq	9.81E-1	1.52E-2	5.97E-2	1.06E+0	3.27E-3	1.04E-1	1.45E-3	-4.96E-1	6.69E-1
GWP-b	kg CO2 eq	-1.09E-2	8.79E-6	4.85E-3	-6.02E-3	1.98E-6	3.30E-2	1.46E-6	9.30E-3	3.63E-2
GWP-luluc	kg CO2 eq	1.67E-4	5.53E-6	1.97E-5	1.92E-4	1.16E-6	1.38E-5	2.83E-8	-1.49E-4	5.81E-5
ODP	kg CFC11 eq	1.16E-8	3.49E-9	7.03E-9	2.21E-8	7.53E-10	2.81E-9	3.97E-11	-5.98E-9	1.98E-8
AP	mol H+ eq	4.60E-3	1.01E-4	1.31E-4	4.83E-3	1.86E-5	1.07E-4	9.83E-7	-1.93E-3	3.02E-3
EP-fw	kg P eq	1.22E-5	1.23E-7	3.93E-7	1.27E-5	2.69E-8	4.98E-7	1.30E-9	-5.97E-6	7.28E-6
EP-m	kg N eq	8.50E-4	3.44E-5	2.94E-5	9.14E-4	6.66E-6	3.29E-5	1.86E-6	-4.00E-4	5.55E-4
EP-T	mol N eq	8.61E-3	3.79E-4	2.78E-4	9.27E-3	7.34E-5	3.59E-4	3.91E-6	-4.06E-3	5.65E-3
POCP	kg NMVOC eq	3.21E-3	1.07E-4	9.07E-5	3.41E-3	2.10E-5	1.08E-4	1.42E-6	-1.51E-3	2.03E-3
ADP-mm	kg Sb eq	1.55E-5	3.83E-7	5.25E-7	1.64E-5	8.45E-8	4.19E-7	9.61E-10	-2.78E-6	1.41E-5
ADP-f	MJ	1.34E+1	2.32E-1	8.50E-1	1.45E+1	5.01E-2	3.12E-1	2.92E-3	-6.83E+0	8.01E+0
WDP	m3 depriv.	2.98E-1	7.01E-4	7.91E-3	3.07E-1	1.54E-4	6.55E-3	1.35E-5	-1.49E-1	1.64E-1
PM	disease inc.	3.99E-8	1.34E-9	9.64E-10	4.22E-8	2.95E-10	1.60E-9	1.99E-11	-1.87E-8	2.54E-8
IR	kBq U-235 eq	4.40E-3	1.01E-3	7.00E-4	6.12E-3	2.19E-4	9.83E-4	1.41E-5	-1.57E-3	5.76E-3
ETP-fw	CTUe	4.76E+0	1.87E-1	6.59E-1	5.61E+0	4.07E-2	5.14E-1	6.16E-3	-1.93E+0	4.24E+0
HTP-c	CTUh	2.19E-10	6.80E-12	2.77E-11	2.54E-10	1.45E-12	4.30E-11	7.73E-14	-5.07E-11	2.48E-10
HTP-nc	CTUh	3.46E-9	2.22E-10	5.74E-10	4.25E-9	4.85E-11	5.79E-10	2.48E-12	-1.24E-9	3.64E-9
SQP	Pt	2.53E+0	1.94E-1	9.49E-2	2.81E+0	4.29E-2	-6.27E-1	7.41E-3	-3.84E+0	-1.60E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	4.69E-1	3.28E-3	1.22E+0	1.70E+0	7.19E-4	-1.12E-1	1.35E-4	-7.25E-1	8.60E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	4.69E-1	3.28E-3	1.22E+0	1.70E+0	7.19E-4	-1.12E-1	1.35E-4	-7.25E-1	8.60E-1
PENRE	MJ	1.44E+1	2.47E-1	9.33E-1	1.56E+1	5.32E-2	3.33E-1	3.09E-3	-7.39E+0	8.63E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.44E+1	2.47E-1	9.33E-1	1.56E+1	5.32E-2	3.33E-1	3.09E-3	-7.39E+0	8.63E+0
PET	MJ	1.49E+1	2.50E-1	2.16E+0	1.73E+1	5.39E-2	2.20E-1	3.23E-3	-8.11E+0	9.49E+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	7.17E-3	2.58E-5	2.33E-4	7.43E-3	5.67E-6	2.08E-4	3.63E-6	-3.56E-3	4.08E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.98E-6	5.82E-7	9.37E-7	3.50E-6	1.28E-7	5.26E-7	3.48E-9	-1.09E-6	3.07E-6
NHWD	kg	4.68E-2	1.40E-2	4.36E-3	6.51E-2	3.11E-3	1.62E-2	1.27E-2	-5.89E-3	9.12E-2
RWD	kg	5.11E-6	1.58E-6	7.08E-7	7.40E-6	3.41E-7	1.25E-6	1.92E-8	-1.60E-6	7.41E-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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