

Environmental Profile

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

Ecochain v3.5.71



Product: 3029597 - Hep20 Pb Brnch Red Tee 90° WT 22x22x15
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	5.99E-1	9.33E-3	4.10E-2	6.49E-1	2.00E-3	8.58E-2	9.03E-4	-3.00E-1	4.38E-1
GWP-f	kg CO2 eq	6.04E-1	9.32E-3	3.81E-2	6.51E-1	2.00E-3	6.93E-2	9.03E-4	-3.04E-1	4.19E-1
GWP-b	kg CO2 eq	-5.34E-3	5.39E-6	2.89E-3	-2.44E-3	1.22E-6	1.65E-2	9.07E-7	4.55E-3	1.86E-2
GWP-luluc	kg CO2 eq	9.32E-5	3.39E-6	1.48E-5	1.11E-4	7.09E-7	8.88E-6	1.76E-8	-7.50E-5	4.61E-5
ODP	kg CFC11 eq	8.32E-9	2.14E-9	4.31E-9	1.48E-8	4.61E-10	1.70E-9	2.47E-11	-3.76E-9	1.32E-8
AP	mol H+ eq	2.82E-3	6.20E-5	9.40E-5	2.97E-3	1.14E-5	6.56E-5	6.11E-7	-1.17E-3	1.88E-3
EP-fw	kg P eq	7.58E-6	7.52E-8	2.72E-7	7.93E-6	1.65E-8	3.08E-7	8.09E-10	-3.49E-6	4.76E-6
EP-m	kg N eq	5.22E-4	2.10E-5	1.98E-5	5.62E-4	4.08E-6	2.01E-5	1.16E-6	-2.43E-4	3.45E-4
EP-T	mol N eq	5.29E-3	2.32E-4	1.92E-4	5.71E-3	4.50E-5	2.20E-4	2.43E-6	-2.46E-3	3.52E-3
POCP	kg NMVOC eq	1.97E-3	6.54E-5	6.22E-5	2.10E-3	1.29E-5	6.60E-5	8.85E-7	-9.15E-4	1.27E-3
ADP-mm	kg Sb eq	1.19E-5	2.35E-7	4.04E-7	1.25E-5	5.18E-8	2.53E-7	5.98E-10	-1.79E-6	1.11E-5
ADP-f	MJ	8.26E+0	1.42E-1	5.35E-1	8.94E+0	3.07E-2	1.91E-1	1.81E-3	-4.16E+0	5.00E+0
WDP	m3 depriv.	1.87E-1	4.29E-4	5.34E-3	1.92E-1	9.43E-5	4.07E-3	8.39E-6	-8.86E-2	1.08E-1
PM	disease inc.	2.45E-8	8.22E-10	6.90E-10	2.60E-8	1.81E-10	9.76E-10	1.24E-11	-1.12E-8	1.60E-8
IR	kBq U-235 eq	3.13E-3	6.21E-4	4.59E-4	4.21E-3	1.34E-4	5.96E-4	8.76E-6	-8.46E-4	4.11E-3
ETP-fw	CTUe	2.75E+0	1.15E-1	4.89E-1	3.35E+0	2.50E-2	3.21E-1	3.83E-3	-1.01E+0	2.69E+0
HTP-c	CTUh	1.35E-10	4.16E-12	2.02E-11	1.59E-10	8.88E-13	2.62E-11	4.81E-14	-2.99E-11	1.56E-10
HTP-nc	CTUh	2.15E-9	1.36E-10	4.27E-10	2.71E-9	2.98E-11	3.55E-10	1.54E-12	-7.17E-10	2.38E-9
SQP	Pt	1.36E+0	1.19E-1	6.83E-2	1.55E+0	2.63E-2	-2.87E-1	4.61E-3	-1.92E+0	-6.33E-1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	2.56E-1	2.01E-3	9.60E-1	1.22E+0	4.41E-4	-5.43E-2	8.38E-5	-3.66E-1	7.98E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	2.56E-1	2.01E-3	9.60E-1	1.22E+0	4.41E-4	-5.43E-2	8.38E-5	-3.66E-1	7.98E-1
PENRE	MJ	8.91E+0	1.51E-1	5.86E-1	9.65E+0	3.26E-2	2.03E-1	1.92E-3	-4.50E+0	5.38E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	8.91E+0	1.51E-1	5.86E-1	9.65E+0	3.26E-2	2.03E-1	1.92E-3	-4.50E+0	5.38E+0
PET	MJ	9.17E+0	1.53E-1	1.55E+0	1.09E+1	3.31E-2	1.49E-1	2.01E-3	-4.87E+0	6.18E+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	4.48E-3	1.58E-5	1.60E-4	4.66E-3	3.48E-6	1.35E-4	2.26E-6	-2.11E-3	2.68E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.26E-6	3.57E-7	5.59E-7	2.17E-6	7.86E-8	3.25E-7	2.16E-9	-6.85E-7	1.89E-6
NHWD	kg	2.85E-2	8.56E-3	2.61E-3	3.96E-2	1.91E-3	9.89E-3	7.91E-3	-3.44E-3	5.59E-2
RWD	kg	3.75E-6	9.68E-7	4.23E-7	5.14E-6	2.09E-7	7.58E-7	1.20E-8	-8.81E-7	5.24E-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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