

Environmental Profile

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

Ecochain v3.5.71



Product: 3029596 - Hep20 Pb Branch Red Tee 90° W 15x15x10
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	3.42E-1	5.25E-3	2.44E-2	3.72E-1	1.13E-3	5.65E-2	5.26E-4	-1.70E-1	2.60E-1
GWP-f	kg CO2 eq	3.46E-1	5.25E-3	2.28E-2	3.74E-1	1.13E-3	4.53E-2	5.26E-4	-1.74E-1	2.48E-1
GWP-b	kg CO2 eq	-3.83E-3	3.04E-6	1.51E-3	-2.31E-3	6.89E-7	1.12E-2	5.28E-7	3.46E-3	1.23E-2
GWP-luluc	kg CO2 eq	6.64E-5	1.91E-6	1.14E-5	7.97E-5	4.01E-7	4.63E-6	1.02E-8	-5.25E-5	3.23E-5
ODP	kg CFC11 eq	6.57E-9	1.20E-9	2.39E-9	1.02E-8	2.61E-10	9.62E-10	1.44E-11	-2.53E-9	8.88E-9
AP	mol H+ eq	1.61E-3	3.48E-5	6.77E-5	1.71E-3	6.46E-6	3.73E-5	3.56E-7	-6.57E-4	1.10E-3
EP-fw	kg P eq	4.63E-6	4.24E-8	1.87E-7	4.86E-6	9.33E-9	1.68E-7	4.71E-10	-2.12E-6	2.91E-6
EP-m	kg N eq	3.01E-4	1.18E-5	1.30E-5	3.26E-4	2.31E-6	1.16E-5	6.74E-7	-1.39E-4	2.02E-4
EP-T	mol N eq	3.06E-3	1.30E-4	1.32E-4	3.32E-3	2.55E-5	1.26E-4	1.42E-6	-1.40E-3	2.07E-3
POCP	kg NMVOC eq	1.13E-3	3.68E-5	4.21E-5	1.21E-3	7.28E-6	3.76E-5	5.16E-7	-5.15E-4	7.42E-4
ADP-mm	kg Sb eq	9.45E-6	1.32E-7	3.19E-7	9.90E-6	2.93E-8	1.42E-7	3.48E-10	-1.12E-6	8.95E-6
ADP-f	MJ	4.79E+0	8.01E-2	3.13E-1	5.18E+0	1.74E-2	1.06E-1	1.06E-3	-2.36E+0	2.94E+0
WDP	m3 depriv.	1.10E-1	2.42E-4	3.52E-3	1.14E-1	5.34E-5	2.31E-3	4.89E-6	-5.25E-2	6.39E-2
PM	disease inc.	1.42E-8	4.63E-10	4.96E-10	1.52E-8	1.02E-10	5.41E-10	7.20E-12	-6.36E-9	9.49E-9
IR	kBq U-235 eq	2.45E-3	3.50E-4	2.90E-4	3.09E-3	7.61E-5	3.33E-4	5.10E-6	-6.00E-4	2.90E-3
ETP-fw	CTUe	1.87E+0	6.46E-2	3.69E-1	2.31E+0	1.41E-2	1.89E-1	2.23E-3	-6.86E-1	1.83E+0
HTP-c	CTUh	7.93E-11	2.34E-12	1.50E-11	9.66E-11	5.03E-13	1.44E-11	2.80E-14	-1.79E-11	9.36E-11
HTP-nc	CTUh	1.31E-9	7.64E-11	3.25E-10	1.71E-9	1.68E-11	2.01E-10	8.99E-13	-4.36E-10	1.49E-9
SQP	Pt	9.17E-1	6.69E-2	4.97E-2	1.03E+0	1.49E-2	-2.08E-1	2.68E-3	-1.35E+0	-5.02E-1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.72E-1	1.13E-3	7.75E-1	9.48E-1	2.50E-4	-3.73E-2	4.88E-5	-2.54E-1	6.57E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.72E-1	1.13E-3	7.75E-1	9.48E-1	2.50E-4	-3.73E-2	4.88E-5	-2.54E-1	6.57E-1
PENRE	MJ	5.16E+0	8.50E-2	3.41E-1	5.59E+0	1.85E-2	1.13E-1	1.12E-3	-2.55E+0	3.16E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	5.16E+0	8.50E-2	3.41E-1	5.59E+0	1.85E-2	1.13E-1	1.12E-3	-2.55E+0	3.16E+0
PET	MJ	5.33E+0	8.62E-2	1.12E+0	6.53E+0	1.87E-2	7.53E-2	1.17E-3	-2.81E+0	3.82E+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	2.66E-3	8.91E-6	1.09E-4	2.78E-3	1.97E-6	8.33E-5	1.32E-6	-1.26E-3	1.61E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	8.42E-7	2.01E-7	2.94E-7	1.34E-6	4.45E-8	1.85E-7	1.26E-9	-4.55E-7	1.11E-6
NHWD	kg	1.66E-2	4.83E-3	1.38E-3	2.28E-2	1.08E-3	5.65E-3	4.60E-3	-2.07E-3	3.21E-2
RWD	kg	3.02E-6	5.45E-7	2.22E-7	3.78E-6	1.18E-7	4.24E-7	6.97E-9	-6.26E-7	3.71E-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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