

Environmental Profile

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

Ecochain v3.5.71



Product: 3029599 - Hep20 Branch & End Red Tee W 15x10x10
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	2.99E-1	4.58E-3	2.17E-2	3.26E-1	1.00E-3	5.29E-2	4.69E-4	-1.49E-1	2.31E-1
GWP-f	kg CO2 eq	3.03E-1	4.58E-3	2.04E-2	3.28E-1	1.00E-3	4.17E-2	4.69E-4	-1.52E-1	2.19E-1
GWP-b	kg CO2 eq	-3.93E-3	2.65E-6	1.29E-3	-2.63E-3	6.09E-7	1.12E-2	4.71E-7	3.50E-3	1.20E-2
GWP-luluc	kg CO2 eq	6.51E-5	1.66E-6	1.09E-5	7.77E-5	3.55E-7	3.86E-6	9.13E-9	-5.24E-5	2.95E-5
ODP	kg CFC11 eq	6.36E-9	1.05E-9	2.09E-9	9.50E-9	2.31E-10	8.52E-10	1.28E-11	-2.37E-9	8.22E-9
AP	mol H+ eq	1.42E-3	3.04E-5	6.36E-5	1.51E-3	5.71E-6	3.30E-5	3.17E-7	-5.77E-4	9.74E-4
EP-fw	kg P eq	4.13E-6	3.70E-8	1.73E-7	4.34E-6	8.25E-9	1.46E-7	4.20E-10	-1.91E-6	2.58E-6
EP-m	kg N eq	2.65E-4	1.03E-5	1.19E-5	2.87E-4	2.04E-6	1.03E-5	6.01E-7	-1.21E-4	1.79E-4
EP-T	mol N eq	2.69E-3	1.14E-4	1.22E-4	2.92E-3	2.25E-5	1.13E-4	1.26E-6	-1.23E-3	1.83E-3
POCP	kg NMVOC eq	1.00E-3	3.21E-5	3.89E-5	1.07E-3	6.44E-6	3.33E-5	4.60E-7	-4.52E-4	6.59E-4
ADP-mm	kg Sb eq	9.02E-6	1.15E-7	3.05E-7	9.45E-6	2.59E-8	1.25E-7	3.10E-10	-1.00E-6	8.60E-6
ADP-f	MJ	4.25E+0	6.99E-2	2.77E-1	4.60E+0	1.54E-2	9.26E-2	9.42E-4	-2.08E+0	2.62E+0
WDP	m3 depriv.	9.69E-2	2.11E-4	3.24E-3	1.00E-1	4.72E-5	2.03E-3	4.35E-6	-4.67E-2	5.57E-2
PM	disease inc.	1.26E-8	4.04E-10	4.66E-10	1.35E-8	9.05E-11	4.73E-10	6.42E-12	-5.63E-9	8.43E-9
IR	kBq U-235 eq	2.37E-3	3.05E-4	2.63E-4	2.94E-3	6.72E-5	2.93E-4	4.55E-6	-5.91E-4	2.71E-3
ETP-fw	CTUe	1.80E+0	5.64E-2	3.50E-1	2.20E+0	1.25E-2	1.69E-1	1.99E-3	-6.71E-1	1.71E+0
HTP-c	CTUh	7.08E-11	2.04E-12	1.42E-11	8.70E-11	4.45E-13	1.26E-11	2.50E-14	-1.62E-11	8.39E-11
HTP-nc	CTUh	1.18E-9	6.67E-11	3.08E-10	1.55E-9	1.49E-11	1.77E-10	8.01E-13	-3.99E-10	1.35E-9
SQP	Pt	8.97E-1	5.83E-2	4.67E-2	1.00E+0	1.32E-2	-2.19E-1	2.39E-3	-1.34E+0	-5.46E-1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.67E-1	9.86E-4	7.46E-1	9.13E-1	2.21E-4	-3.80E-2	4.35E-5	-2.52E-1	6.23E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.67E-1	9.86E-4	7.46E-1	9.13E-1	2.21E-4	-3.80E-2	4.35E-5	-2.52E-1	6.23E-1
PENRE	MJ	4.58E+0	7.42E-2	3.03E-1	4.96E+0	1.63E-2	9.86E-2	9.99E-4	-2.25E+0	2.82E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	4.58E+0	7.42E-2	3.03E-1	4.96E+0	1.63E-2	9.86E-2	9.99E-4	-2.25E+0	2.82E+0
PET	MJ	4.75E+0	7.52E-2	1.05E+0	5.87E+0	1.66E-2	6.07E-2	1.04E-3	-2.51E+0	3.44E+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	2.35E-3	7.78E-6	1.01E-4	2.46E-3	1.74E-6	7.53E-5	1.17E-6	-1.12E-3	1.41E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	7.88E-7	1.75E-7	2.52E-7	1.21E-6	3.93E-8	1.63E-7	1.12E-9	-4.26E-7	9.92E-7
NHWD	kg	1.49E-2	4.21E-3	1.18E-3	2.03E-2	9.54E-4	5.01E-3	4.10E-3	-1.88E-3	2.84E-2
RWD	kg	2.93E-6	4.76E-7	1.90E-7	3.59E-6	1.05E-7	3.74E-7	6.21E-9	-6.15E-7	3.46E-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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