

Environmental Profile

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

Ecochain v3.5.71



Product: 3030670 - Hep20 Branch & End Red Tee W 28x22x22
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

This document and supporting material contain confidential and proprietary business information of Wavin - UK - Doncaster - Verified. These materials may be printed or (photo) copied or otherwise used only with the written consent of Wavin - UK - Doncaster - Verified.

Results

Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	8.50E-1	1.34E-2	5.76E-2	9.21E-1	2.90E-3	1.22E-1	1.29E-3	-4.26E-1	6.21E-1
GWP-f	kg CO2 eq	8.59E-1	1.34E-2	5.33E-2	9.26E-1	2.90E-3	9.41E-2	1.29E-3	-4.34E-1	5.90E-1
GWP-b	kg CO2 eq	-8.99E-3	7.74E-6	4.27E-3	-4.71E-3	1.76E-6	2.77E-2	1.30E-6	8.05E-3	3.10E-2
GWP-luluc	kg CO2 eq	1.45E-4	4.87E-6	1.82E-5	1.68E-4	1.03E-6	1.24E-5	2.52E-8	-1.27E-4	5.46E-5
ODP	kg CFC11 eq	1.06E-8	3.08E-9	6.22E-9	1.99E-8	6.68E-10	2.49E-9	3.53E-11	-5.32E-9	1.78E-8
AP	mol H+ eq	4.05E-3	8.94E-5	1.20E-4	4.26E-3	1.65E-5	9.51E-5	8.75E-7	-1.69E-3	2.68E-3
EP-fw	kg P eq	1.06E-5	1.08E-7	3.57E-7	1.11E-5	2.38E-8	4.44E-7	1.16E-9	-5.13E-6	6.43E-6
EP-m	kg N eq	7.42E-4	3.03E-5	2.66E-5	7.99E-4	5.91E-6	2.92E-5	1.66E-6	-3.48E-4	4.88E-4
EP-T	mol N eq	7.53E-3	3.34E-4	2.53E-4	8.12E-3	6.51E-5	3.18E-4	3.48E-6	-3.54E-3	4.97E-3
POCP	kg NMVOC eq	2.83E-3	9.43E-5	8.23E-5	3.01E-3	1.86E-5	9.57E-5	1.27E-6	-1.33E-3	1.79E-3
ADP-mm	kg Sb eq	1.43E-5	3.38E-7	4.89E-7	1.51E-5	7.50E-8	3.71E-7	8.55E-10	-2.42E-6	1.31E-5
ADP-f	MJ	1.19E+1	2.05E-1	7.57E-1	1.28E+1	4.45E-2	2.77E-1	2.60E-3	-6.03E+0	7.11E+0
WDP	m3 depriv.	2.60E-1	6.17E-4	7.15E-3	2.68E-1	1.36E-4	5.83E-3	1.20E-5	-1.29E-1	1.45E-1
PM	disease inc.	3.51E-8	1.18E-9	8.83E-10	3.72E-8	2.62E-10	1.42E-9	1.77E-11	-1.63E-8	2.25E-8
IR	kBq U-235 eq	4.02E-3	8.94E-4	6.28E-4	5.54E-3	1.94E-4	8.71E-4	1.25E-5	-1.35E-3	5.27E-3
ETP-fw	CTUe	4.15E+0	1.65E-1	6.09E-1	4.93E+0	3.61E-2	4.58E-1	5.48E-3	-1.65E+0	3.77E+0
HTP-c	CTUh	1.93E-10	5.99E-12	2.55E-11	2.25E-10	1.29E-12	3.82E-11	6.88E-14	-4.40E-11	2.20E-10
HTP-nc	CTUh	3.05E-9	1.95E-10	5.30E-10	3.77E-9	4.31E-11	5.14E-10	2.21E-12	-1.08E-9	3.26E-9
SQP	Pt	2.16E+0	1.71E-1	8.70E-2	2.41E+0	3.81E-2	-5.10E-1	6.59E-3	-3.26E+0	-1.31E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	4.02E-1	2.89E-3	1.15E+0	1.55E+0	6.38E-4	-9.26E-2	1.20E-4	-6.17E-1	8.42E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	4.02E-1	2.89E-3	1.15E+0	1.55E+0	6.38E-4	-9.26E-2	1.20E-4	-6.17E-1	8.42E-1
PENRE	MJ	1.28E+1	2.17E-1	8.30E-1	1.38E+1	4.72E-2	2.95E-1	2.75E-3	-6.52E+0	7.65E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.28E+1	2.17E-1	8.30E-1	1.38E+1	4.72E-2	2.95E-1	2.75E-3	-6.52E+0	7.65E+0
PET	MJ	1.32E+1	2.20E-1	1.98E+0	1.54E+1	4.79E-2	2.03E-1	2.87E-3	-7.14E+0	8.49E+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	6.26E-3	2.27E-5	2.11E-4	6.49E-3	5.03E-6	1.87E-4	3.23E-6	-3.07E-3	3.61E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.76E-6	5.13E-7	8.25E-7	3.10E-6	1.14E-7	4.68E-7	3.10E-9	-9.72E-7	2.71E-6
NHWD	kg	4.13E-2	1.23E-2	3.84E-3	5.74E-2	2.76E-3	1.43E-2	1.13E-2	-5.12E-3	8.07E-2
RWD	kg	4.70E-6	1.39E-6	6.24E-7	6.71E-6	3.02E-7	1.11E-6	1.71E-8	-1.38E-6	6.76E-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



Ecochain Technologies BV
H.J.E. Wenckebachweg 123, 1096 AM Amsterdam, The Netherlands
<https://www.ecochain.com>
+31 20 3035 777