

Environmental Profile

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

Ecochain v3.5.71



Product: 3029610 - Hep20 Bent Tap Connector 90° WT 15X1/2
Unit: 1 piece
Manufacturer: Wavin - UK - Doncaster - Verified

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



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

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	3.76E-1	2.45E-3	2.49E-2	4.03E-1	7.25E-4	3.84E-2	3.32E-4	-1.52E-1	2.91E-1
GWP-f	kg CO2 eq	3.78E-1	2.44E-3	2.30E-2	4.04E-1	7.25E-4	2.82E-2	3.32E-4	-1.53E-1	2.80E-1
GWP-b	kg CO2 eq	-2.58E-3	1.44E-6	1.81E-3	-7.69E-4	4.40E-7	1.02E-2	3.30E-7	1.72E-3	1.12E-2
GWP-luluc	kg CO2 eq	1.49E-4	8.78E-7	8.31E-6	1.58E-4	2.57E-7	3.23E-6	6.72E-9	-2.02E-5	1.41E-4
ODP	kg CFC11 eq	1.24E-8	5.62E-10	2.66E-9	1.56E-8	1.67E-10	8.55E-10	9.07E-12	-2.11E-9	1.45E-8
AP	mol H+ eq	1.93E-3	1.53E-5	5.39E-5	2.00E-3	4.13E-6	3.39E-5	2.26E-7	-5.59E-4	1.48E-3
EP-fw	kg P eq	1.27E-5	1.99E-8	1.59E-7	1.29E-5	5.96E-9	1.44E-7	3.05E-10	-2.58E-6	1.04E-5
EP-m	kg N eq	4.38E-4	5.29E-6	1.17E-5	4.55E-4	1.48E-6	1.02E-5	4.13E-7	-1.24E-4	3.44E-4
EP-T	mol N eq	3.64E-3	5.83E-5	1.12E-4	3.81E-3	1.63E-5	1.12E-4	8.96E-7	-1.27E-3	2.67E-3
POCP	kg NMVOC eq	1.17E-3	1.65E-5	3.64E-5	1.22E-3	4.65E-6	3.24E-5	3.26E-7	-4.99E-4	7.62E-4
ADP-mm	kg Sb eq	9.32E-6	6.23E-8	2.24E-7	9.61E-6	1.88E-8	1.40E-7	2.23E-10	-9.25E-7	8.84E-6
ADP-f	MJ	4.95E+0	3.74E-2	3.26E-1	5.32E+0	1.11E-2	8.47E-2	6.68E-4	-1.74E+0	3.67E+0
WDP	m3 depriv.	2.09E-1	1.14E-4	3.14E-3	2.12E-1	3.41E-5	1.52E-3	4.05E-6	-4.73E-2	1.66E-1
PM	disease inc.	1.96E-8	2.18E-10	3.96E-10	2.02E-8	6.54E-11	4.80E-10	4.56E-12	-5.97E-9	1.48E-8
IR	kBq U-235 eq	6.80E-3	1.63E-4	2.74E-4	7.23E-3	4.86E-5	2.97E-4	3.20E-6	-1.01E-5	7.57E-3
ETP-fw	CTUe	5.45E+0	3.02E-2	2.76E-1	5.76E+0	9.04E-3	1.56E-1	1.38E-3	-1.27E+0	4.65E+0
HTP-c	CTUh	1.82E-9	1.09E-12	1.15E-11	1.83E-9	3.22E-13	1.06E-11	1.84E-14	-1.66E-11	1.83E-9
HTP-nc	CTUh	6.17E-9	3.59E-11	2.41E-10	6.45E-9	1.08E-11	1.76E-10	5.65E-13	4.18E-9	1.08E-8
SQP	Pt	1.44E+0	3.15E-2	3.91E-2	1.51E+0	9.52E-3	-2.14E-1	1.69E-3	-1.00E+0	3.06E-1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	4.89E-1	5.31E-4	5.29E-1	1.02E+0	1.60E-4	-3.79E-2	3.01E-5	-1.77E-1	8.04E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	4.89E-1	5.31E-4	5.29E-1	1.02E+0	1.60E-4	-3.79E-2	3.01E-5	-1.77E-1	8.04E-1
PENRE	MJ	5.31E+0	3.97E-2	3.57E-1	5.71E+0	1.18E-2	9.01E-2	7.09E-4	-1.88E+0	3.93E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	5.31E+0	3.97E-2	3.57E-1	5.71E+0	1.18E-2	9.01E-2	7.09E-4	-1.88E+0	3.93E+0
PET	MJ	5.80E+0	4.02E-2	8.86E-1	6.73E+0	1.20E-2	5.22E-2	7.39E-4	-2.06E+0	4.74E+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	5.23E-3	4.19E-6	9.35E-5	5.33E-3	1.26E-6	5.43E-5	8.27E-7	-1.11E-3	4.28E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	3.58E-6	9.46E-8	3.49E-7	4.02E-6	2.85E-8	1.64E-7	8.05E-10	-3.07E-6	1.15E-6
NHWD	kg	1.39E-1	2.28E-3	1.63E-3	1.43E-1	6.90E-4	4.75E-3	2.90E-3	-3.78E-3	1.47E-1
RWD	kg	6.75E-6	2.54E-7	2.64E-7	7.27E-6	7.57E-8	3.91E-7	4.39E-9	-2.82E-7	7.45E-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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