

Environmental Profile

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

Ecochain v3.5.71



Product: 3029612 - Hep20 Elbow 90° Spigot WT 15 PF/SP
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	1.60E-1	2.69E-3	1.26E-2	1.75E-1	6.07E-4	3.15E-2	2.74E-4	-8.15E-2	1.26E-1
GWP-f	kg CO2 eq	1.64E-1	2.68E-3	1.18E-2	1.79E-1	6.06E-4	2.13E-2	2.74E-4	-8.30E-2	1.18E-1
GWP-b	kg CO2 eq	-4.02E-3	1.55E-6	7.91E-4	-3.23E-3	3.68E-7	1.03E-2	2.76E-7	1.51E-3	8.55E-3
GWP-luluc	kg CO2 eq	4.13E-5	9.77E-7	5.81E-6	4.81E-5	2.15E-7	1.70E-6	5.35E-9	-3.72E-5	1.27E-5
ODP	kg CFC11 eq	2.88E-9	6.16E-10	1.25E-9	4.75E-9	1.40E-10	5.09E-10	7.49E-12	-1.30E-9	4.10E-9
AP	mol H+ eq	8.16E-4	1.80E-5	3.46E-5	8.69E-4	3.45E-6	1.90E-5	1.86E-7	-3.39E-4	5.53E-4
EP-fw	kg P eq	2.06E-6	2.17E-8	9.56E-8	2.18E-6	4.99E-9	8.11E-8	2.46E-10	-1.05E-6	1.22E-6
EP-m	kg N eq	1.42E-4	6.08E-6	6.68E-6	1.55E-4	1.24E-6	5.99E-6	3.52E-7	-6.62E-5	9.66E-5
EP-T	mol N eq	1.46E-3	6.71E-5	6.75E-5	1.59E-3	1.36E-5	6.50E-5	7.39E-7	-6.82E-4	9.91E-4
POCP	kg NMVOC eq	5.71E-4	1.89E-5	2.16E-5	6.11E-4	3.89E-6	1.90E-5	2.69E-7	-2.65E-4	3.69E-4
ADP-mm	kg Sb eq	3.53E-6	6.76E-8	1.62E-7	3.76E-6	1.57E-8	7.54E-8	1.82E-10	-4.45E-7	3.41E-6
ADP-f	MJ	2.46E+0	4.10E-2	1.62E-1	2.67E+0	9.30E-3	5.43E-2	5.51E-4	-1.24E+0	1.49E+0
WDP	m3 depriv.	4.81E-2	1.23E-4	1.81E-3	5.00E-2	2.86E-5	1.16E-3	2.55E-6	-2.52E-2	2.61E-2
PM	disease inc.	7.11E-9	2.36E-10	2.53E-10	7.60E-9	5.47E-11	2.70E-10	3.76E-12	-3.32E-9	4.62E-9
IR	kBq U-235 eq	1.09E-3	1.79E-4	1.49E-4	1.42E-3	4.07E-5	1.74E-4	2.66E-6	-3.86E-4	1.25E-3
ETP-fw	CTUe	1.09E+0	3.30E-2	1.87E-1	1.31E+0	7.55E-3	9.40E-2	1.16E-3	-4.57E-1	9.54E-1
HTP-c	CTUh	4.06E-11	1.20E-12	7.64E-12	4.95E-11	2.69E-13	7.38E-12	1.46E-14	-9.31E-12	4.78E-11
HTP-nc	CTUh	6.48E-10	3.91E-11	1.65E-10	8.52E-10	9.01E-12	1.04E-10	4.69E-13	-2.40E-10	7.26E-10
SQP	Pt	6.95E-1	3.41E-2	2.53E-2	7.55E-1	7.96E-3	-2.48E-1	1.40E-3	-9.62E-1	-4.45E-1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.24E-1	5.77E-4	3.92E-1	5.17E-1	1.33E-4	-3.99E-2	2.55E-5	-1.80E-1	2.97E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.24E-1	5.77E-4	3.92E-1	5.17E-1	1.33E-4	-3.99E-2	2.55E-5	-1.80E-1	2.97E-1
PENRE	MJ	2.65E+0	4.35E-2	1.77E-1	2.87E+0	9.88E-3	5.78E-2	5.85E-4	-1.34E+0	1.60E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	2.65E+0	4.35E-2	1.77E-1	2.87E+0	9.88E-3	5.78E-2	5.85E-4	-1.34E+0	1.60E+0
PET	MJ	2.78E+0	4.41E-2	5.69E-1	3.39E+0	1.00E-2	1.79E-2	6.10E-4	-1.52E+0	1.90E+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	1.17E-3	4.55E-6	5.59E-5	1.23E-3	1.05E-6	3.95E-5	6.87E-7	-6.10E-4	6.65E-4

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	4.27E-7	1.03E-7	1.54E-7	6.83E-7	2.38E-8	9.11E-8	6.57E-10	-2.36E-7	5.62E-7
NHWD	kg	8.78E-3	2.46E-3	7.20E-4	1.20E-2	5.77E-4	2.99E-3	2.40E-3	-1.13E-3	1.68E-2
RWD	kg	1.29E-6	2.79E-7	1.16E-7	1.69E-6	6.33E-8	2.24E-7	3.64E-9	-3.91E-7	1.59E-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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