

Environmental Profile

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

Ecochain v3.5.71



Product: 3029613 - Hep20 Elbow 90° Spigot WT 22 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	3.00E-1	5.06E-3	2.22E-2	3.28E-1	1.16E-3	4.79E-2	5.14E-4	-1.51E-1	2.26E-1
GWP-f	kg CO2 eq	3.04E-1	5.05E-3	2.06E-2	3.30E-1	1.16E-3	3.67E-2	5.14E-4	-1.54E-1	2.14E-1
GWP-b	kg CO2 eq	-3.57E-3	2.91E-6	1.59E-3	-1.98E-3	7.04E-7	1.12E-2	5.17E-7	3.43E-3	1.26E-2
GWP-luluc	kg CO2 eq	5.80E-5	1.84E-6	7.77E-6	6.76E-5	4.10E-7	5.01E-6	1.00E-8	-5.21E-5	2.09E-5
ODP	kg CFC11 eq	3.94E-9	1.16E-9	2.36E-9	7.45E-9	2.67E-10	1.00E-9	1.41E-11	-2.09E-9	6.64E-9
AP	mol H+ eq	1.53E-3	3.40E-5	4.98E-5	1.61E-3	6.60E-6	3.81E-5	3.48E-7	-6.37E-4	1.02E-3
EP-fw	kg P eq	3.49E-6	4.07E-8	1.45E-7	3.67E-6	9.54E-9	1.78E-7	4.61E-10	-1.71E-6	2.15E-6
EP-m	kg N eq	2.60E-4	1.15E-5	1.06E-5	2.82E-4	2.36E-6	1.17E-5	6.59E-7	-1.22E-4	1.75E-4
EP-T	mol N eq	2.67E-3	1.27E-4	1.03E-4	2.90E-3	2.60E-5	1.28E-4	1.39E-6	-1.25E-3	1.80E-3
POCP	kg NMVOC eq	1.06E-3	3.57E-5	3.32E-5	1.13E-3	7.44E-6	3.84E-5	5.04E-7	-4.99E-4	6.77E-4
ADP-mm	kg Sb eq	4.76E-6	1.27E-7	2.11E-7	5.10E-6	3.00E-8	1.49E-7	3.40E-10	-7.37E-7	4.54E-6
ADP-f	MJ	4.59E+0	7.71E-2	2.91E-1	4.96E+0	1.78E-2	1.11E-1	1.03E-3	-2.35E+0	2.74E+0
WDP	m3 depriv.	8.59E-2	2.32E-4	2.86E-3	8.90E-2	5.46E-5	2.33E-3	4.78E-6	-4.30E-2	4.83E-2
PM	disease inc.	1.30E-8	4.44E-10	3.65E-10	1.38E-8	1.05E-10	5.71E-10	7.05E-12	-6.09E-9	8.43E-9
IR	kBq U-235 eq	1.50E-3	3.37E-4	2.47E-4	2.09E-3	7.78E-5	3.50E-4	4.99E-6	-5.47E-4	1.97E-3
ETP-fw	CTUe	1.63E+0	6.21E-2	2.57E-1	1.95E+0	1.44E-2	1.83E-1	2.18E-3	-6.61E-1	1.48E+0
HTP-c	CTUh	7.27E-11	2.26E-12	1.07E-11	8.57E-11	5.14E-13	1.54E-11	2.74E-14	-1.59E-11	8.57E-11
HTP-nc	CTUh	1.13E-9	7.34E-11	2.25E-10	1.43E-9	1.72E-11	2.06E-10	8.79E-13	-3.99E-10	1.25E-9
SQP	Pt	8.58E-1	6.41E-2	3.61E-2	9.58E-1	1.52E-2	-2.03E-1	2.63E-3	-1.34E+0	-5.69E-1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.60E-1	1.09E-3	5.00E-1	6.61E-1	2.55E-4	-3.70E-2	4.78E-5	-2.53E-1	3.71E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.60E-1	1.09E-3	5.00E-1	6.61E-1	2.55E-4	-3.70E-2	4.78E-5	-2.53E-1	3.71E-1
PENRE	MJ	4.94E+0	8.18E-2	3.19E-1	5.34E+0	1.89E-2	1.19E-1	1.10E-3	-2.54E+0	2.95E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	4.94E+0	8.18E-2	3.19E-1	5.34E+0	1.89E-2	1.19E-1	1.10E-3	-2.54E+0	2.95E+0
PET	MJ	5.10E+0	8.29E-2	8.18E-1	6.00E+0	1.91E-2	8.16E-2	1.14E-3	-2.79E+0	3.32E+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	2.08E-3	8.56E-6	8.54E-5	2.17E-3	2.01E-6	7.39E-5	1.29E-6	-1.04E-3	1.21E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	6.66E-7	1.93E-7	3.08E-7	1.17E-6	4.55E-8	1.88E-7	1.23E-9	-3.82E-7	1.02E-6
NHWD	kg	1.59E-2	4.63E-3	1.43E-3	2.20E-2	1.10E-3	5.74E-3	4.50E-3	-1.93E-3	3.14E-2
RWD	kg	1.73E-6	5.24E-7	2.33E-7	2.49E-6	1.21E-7	4.47E-7	6.82E-9	-5.57E-7	2.51E-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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