

Environmental Profile

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

Ecochain v3.5.71



Product: 3030705 - Hep20 90° Service Valve 15x1/2 PF/TF
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	3.62E-1	2.69E-3	3.27E-2	3.98E-1	1.78E-3	1.71E-2	1.89E-4	-1.15E-1	3.01E-1
GWP-f	kg CO2 eq	3.62E-1	2.69E-3	3.02E-2	3.95E-1	1.78E-3	1.72E-2	1.89E-4	-1.14E-1	3.00E-1
GWP-b	kg CO2 eq	1.70E-4	1.59E-6	2.46E-3	2.63E-3	1.08E-6	-6.43E-5	2.18E-7	-1.23E-3	1.34E-3
GWP-luluc	kg CO2 eq	3.95E-4	9.64E-7	9.92E-6	4.05E-4	6.29E-7	2.88E-6	1.12E-8	-1.15E-4	2.94E-4
ODP	kg CFC11 eq	1.86E-8	6.17E-10	3.57E-9	2.28E-8	4.10E-10	4.25E-10	1.63E-11	-5.19E-9	1.84E-8
AP	mol H+ eq	2.26E-2	1.66E-5	6.64E-5	2.27E-2	1.01E-5	2.31E-5	3.83E-7	-1.85E-3	2.09E-2
EP-fw	kg P eq	1.79E-4	2.19E-8	1.99E-7	1.79E-4	1.46E-8	1.20E-7	4.68E-10	-1.47E-5	1.65E-4
EP-m	kg N eq	1.22E-3	5.78E-6	1.49E-5	1.24E-3	3.62E-6	6.06E-6	3.00E-7	-2.29E-4	1.02E-3
EP-T	mol N eq	1.75E-2	6.37E-5	1.41E-4	1.77E-2	3.99E-5	6.80E-5	1.47E-6	-3.07E-3	1.47E-2
POCP	kg NMVOC eq	4.73E-3	1.81E-5	4.59E-5	4.79E-3	1.14E-5	1.97E-5	4.60E-7	-7.50E-4	4.07E-3
ADP-mm	kg Sb eq	1.42E-3	6.85E-8	2.65E-7	1.42E-3	4.60E-8	9.33E-8	3.71E-10	-6.61E-4	7.59E-4
ADP-f	MJ	4.30E+0	4.11E-2	4.31E-1	4.77E+0	2.73E-2	4.58E-2	1.13E-3	-1.47E+0	3.37E+0
WDP	m3 depriv.	2.49E-1	1.25E-4	4.00E-3	2.53E-1	8.37E-5	7.03E-4	3.78E-5	-7.00E-2	1.84E-1
PM	disease inc.	5.35E-8	2.39E-10	4.87E-10	5.42E-8	1.60E-10	3.31E-10	7.53E-12	-7.77E-9	4.69E-8
IR	kBq U-235 eq	1.25E-2	1.80E-4	3.54E-4	1.31E-2	1.19E-4	1.66E-4	4.87E-6	-4.76E-3	8.59E-3
ETP-fw	CTUe	2.19E+2	3.33E-2	3.33E-1	2.20E+2	2.22E-2	1.20E-1	1.20E-3	-3.10E+1	1.89E+2
HTP-c	CTUh	3.20E-9	1.20E-12	1.40E-11	3.22E-9	7.89E-13	5.90E-12	2.07E-14	-6.97E-10	2.53E-9
HTP-nc	CTUh	2.57E-7	3.95E-11	2.90E-10	2.57E-7	2.64E-11	1.27E-10	6.47E-13	-4.43E-8	2.13E-7
SQP	Pt	3.48E+0	3.47E-2	4.79E-2	3.56E+0	2.33E-2	5.29E-2	2.52E-3	-6.22E-1	3.02E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	7.28E-1	5.84E-4	6.17E-1	1.35E+0	3.92E-4	3.66E-3	2.14E-5	-1.87E-1	1.16E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	7.28E-1	5.84E-4	6.17E-1	1.35E+0	3.92E-4	3.66E-3	2.14E-5	-1.87E-1	1.16E+0
PENRE	MJ	4.59E+0	4.36E-2	4.73E-1	5.11E+0	2.90E-2	4.88E-2	1.20E-3	-1.58E+0	3.61E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	4.59E+0	4.36E-2	4.73E-1	5.11E+0	2.90E-2	4.88E-2	1.20E-3	-1.58E+0	3.61E+0
PET	MJ	5.32E+0	4.42E-2	1.09E+0	6.46E+0	2.94E-2	5.24E-2	1.22E-3	-1.76E+0	4.78E+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	6.49E-3	4.61E-6	1.18E-4	6.62E-3	3.09E-6	3.14E-5	1.27E-6	-1.86E-3	4.79E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.77E-4	1.04E-7	4.75E-7	1.77E-4	6.98E-8	9.98E-8	1.59E-9	-8.31E-5	9.45E-5
NHWD	kg	9.03E-2	2.51E-3	2.21E-3	9.51E-2	1.69E-3	2.10E-3	6.90E-3	-2.91E-2	7.66E-2
RWD	kg	1.09E-5	2.80E-7	3.59E-7	1.16E-5	1.86E-7	2.05E-7	7.44E-9	-3.81E-6	8.16E-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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