

Environmental Profile

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

Ecochain v3.5.71



Product: 3030725 - Hep20 Ball Valve Lever 22x22 PF/PF
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	2.54E+0	9.28E-2	2.38E-1	2.87E+0	1.37E-2	5.74E-2	7.34E-4	-7.01E-1	2.24E+0
GWP-f	kg CO2 eq	2.54E+0	9.28E-2	2.18E-1	2.85E+0	1.37E-2	4.76E-2	7.33E-4	-6.91E-1	2.22E+0
GWP-b	kg CO2 eq	-2.94E-3	-1.88E-5	1.92E-2	1.63E-2	8.33E-6	9.78E-3	9.85E-7	-8.56E-3	1.75E-2
GWP-luluc	kg CO2 eq	3.42E-3	6.07E-5	5.50E-5	3.53E-3	4.85E-6	1.39E-5	8.00E-8	-1.04E-3	2.51E-3
ODP	kg CFC11 eq	1.46E-7	1.89E-8	2.70E-8	1.92E-7	3.16E-9	2.29E-9	1.17E-10	-4.11E-8	1.56E-7
AP	mol H+ eq	1.95E-1	2.74E-3	4.06E-4	1.98E-1	7.81E-5	1.41E-4	2.73E-6	-1.52E-2	1.83E-1
EP-fw	kg P eq	1.56E-3	4.23E-7	1.28E-6	1.56E-3	1.13E-7	7.42E-7	3.27E-9	-1.26E-4	1.43E-3
EP-m	kg N eq	1.01E-2	6.80E-4	1.00E-4	1.09E-2	2.80E-5	3.46E-5	1.44E-6	-1.77E-3	9.19E-3
EP-T	mol N eq	1.48E-1	7.56E-3	9.09E-4	1.56E-1	3.08E-4	3.93E-4	1.04E-5	-2.46E-2	1.32E-1
POCP	kg NMVOC eq	3.94E-2	1.97E-3	3.00E-4	4.17E-2	8.81E-5	1.11E-4	3.12E-6	-5.76E-3	3.61E-2
ADP-mm	kg Sb eq	1.24E-2	8.79E-7	1.41E-6	1.24E-2	3.55E-7	6.11E-7	2.64E-9	-5.78E-3	6.61E-3
ADP-f	MJ	2.94E+1	1.21E+0	3.16E+0	3.38E+1	2.11E-1	2.31E-1	8.05E-3	-9.12E+0	2.51E+1
WDP	m3 depriv.	1.95E+0	2.02E-3	2.68E-2	1.98E+0	6.46E-4	2.05E-3	3.22E-4	-5.37E-1	1.45E+0
PM	disease inc.	4.43E-7	3.46E-9	2.98E-9	4.50E-7	1.24E-9	2.01E-9	5.32E-11	-5.90E-8	3.94E-7
IR	kBq U-235 eq	1.03E-1	5.21E-3	2.47E-3	1.11E-1	9.20E-4	9.44E-4	3.37E-5	-4.15E-2	7.14E-2
ETP-fw	CTUe	1.92E+3	8.07E-1	1.91E+0	1.92E+3	1.71E-1	7.12E-1	6.63E-3	-2.71E+2	1.65E+3
HTP-c	CTUh	2.79E-8	5.13E-11	8.22E-11	2.80E-8	6.08E-12	2.85E-11	1.32E-13	-6.07E-9	2.20E-8
HTP-nc	CTUh	2.24E-6	6.95E-10	1.64E-9	2.25E-6	2.04E-10	7.90E-10	4.09E-12	-3.87E-7	1.86E-6
SQP	Pt	3.04E+1	2.77E-1	2.89E-1	3.10E+1	1.80E-1	4.23E-2	1.73E-2	-6.36E+0	2.48E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	6.34E+0	9.36E-3	3.16E+0	9.51E+0	3.02E-3	-1.93E-2	1.02E-4	-1.79E+0	7.70E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	6.34E+0	9.36E-3	3.16E+0	9.51E+0	3.02E-3	-1.93E-2	1.02E-4	-1.79E+0	7.70E+0
PENRE	MJ	3.14E+1	1.29E+0	3.48E+0	3.62E+1	2.24E-1	2.45E-1	8.54E-3	-9.75E+0	2.69E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	3.14E+1	1.29E+0	3.48E+0	3.62E+1	2.24E-1	2.45E-1	8.54E-3	-9.75E+0	2.69E+1
PET	MJ	3.78E+1	1.30E+0	6.64E+0	4.57E+1	2.27E-1	2.26E-1	8.65E-3	-1.15E+1	3.46E+1
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	5.15E-2	7.27E-5	7.63E-4	5.24E-2	2.38E-5	9.93E-5	8.76E-6	-1.45E-2	3.80E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.55E-3	1.37E-6	3.70E-6	1.55E-3	5.38E-7	5.54E-7	1.17E-8	-7.26E-4	8.25E-4
NHWD	kg	7.64E-1	1.22E-2	1.72E-2	7.94E-1	1.30E-2	9.46E-3	5.23E-2	-2.52E-1	6.16E-1
RWD	kg	8.77E-5	8.41E-6	2.80E-6	9.89E-5	1.43E-6	1.17E-6	5.29E-8	-3.31E-5	6.84E-5
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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