

Environmental Profile

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

Ecochain v3.5.71



Product: 3030724 - Hep20 Ball Valve Lever 15x15 PF/PF
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

This document and supporting material contain confidential and proprietary business information of Wavin - UK - Doncaster - Verified. These materials may be printed or (photo) copied or otherwise used only with the written consent of Wavin - UK - Doncaster - Verified.

Results

Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	1.37E+0	5.00E-2	1.28E-1	1.55E+0	7.38E-3	4.10E-2	4.21E-4	-3.80E-1	1.22E+0
GWP-f	kg CO2 eq	1.37E+0	5.00E-2	1.18E-1	1.54E+0	7.37E-3	3.09E-2	4.21E-4	-3.76E-1	1.20E+0
GWP-b	kg CO2 eq	-3.69E-3	-9.79E-6	1.02E-2	6.46E-3	4.48E-6	1.00E-2	5.56E-7	-3.79E-3	1.27E-2
GWP-luluc	kg CO2 eq	1.84E-3	3.26E-5	3.27E-5	1.91E-3	2.61E-6	6.76E-6	4.33E-8	-5.72E-4	1.35E-3
ODP	kg CFC11 eq	7.96E-8	1.02E-8	1.44E-8	1.04E-7	1.70E-9	1.26E-9	6.35E-11	-2.24E-8	8.48E-8
AP	mol H+ eq	1.04E-1	1.47E-3	2.33E-4	1.06E-1	4.20E-5	7.62E-5	1.48E-6	-8.13E-3	9.79E-2
EP-fw	kg P eq	8.32E-4	2.29E-7	7.21E-7	8.33E-4	6.07E-8	3.92E-7	1.77E-9	-6.75E-5	7.66E-4
EP-m	kg N eq	5.42E-3	3.64E-4	5.54E-5	5.84E-3	1.50E-5	1.90E-5	8.08E-7	-9.54E-4	4.92E-3
EP-T	mol N eq	7.91E-2	4.05E-3	5.11E-4	8.36E-2	1.66E-4	2.15E-4	5.64E-6	-1.32E-2	7.08E-2
POCP	kg NMVOC eq	2.11E-2	1.05E-3	1.68E-4	2.23E-2	4.73E-5	6.04E-5	1.70E-6	-3.10E-3	1.93E-2
ADP-mm	kg Sb eq	6.62E-3	4.80E-7	8.53E-7	6.62E-3	1.91E-7	3.31E-7	1.43E-9	-3.09E-3	3.53E-3
ADP-f	MJ	1.60E+1	6.54E-1	1.70E+0	1.83E+1	1.13E-1	1.24E-1	4.36E-3	-4.97E+0	1.36E+1
WDP	m3 depriv.	1.05E+0	1.10E-3	1.49E-2	1.07E+0	3.47E-4	1.14E-3	1.72E-4	-2.91E-1	7.76E-1
PM	disease inc.	2.38E-7	1.88E-9	1.71E-9	2.41E-7	6.65E-10	1.07E-9	2.88E-11	-3.19E-8	2.11E-7
IR	kBq U-235 eq	5.58E-2	2.81E-3	1.35E-3	6.00E-2	4.95E-4	5.11E-4	1.83E-5	-2.24E-2	3.86E-2
ETP-fw	CTUe	1.03E+3	4.36E-1	1.12E+0	1.03E+3	9.19E-2	3.90E-1	3.67E-3	-1.45E+2	8.82E+2
HTP-c	CTUh	1.49E-8	2.76E-11	4.78E-11	1.50E-8	3.27E-12	1.52E-11	7.19E-14	-3.25E-9	1.18E-8
HTP-nc	CTUh	1.20E-6	3.77E-10	9.69E-10	1.20E-6	1.10E-10	4.28E-10	2.23E-12	-2.07E-7	9.94E-7
SQP	Pt	1.65E+1	1.53E-1	1.67E-1	1.69E+1	9.68E-2	-1.12E-1	9.39E-3	-3.85E+0	1.30E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	3.44E+0	5.09E-3	1.94E+0	5.38E+0	1.62E-3	-3.01E-2	5.71E-5	-1.04E+0	4.31E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	3.44E+0	5.09E-3	1.94E+0	5.38E+0	1.62E-3	-3.01E-2	5.71E-5	-1.04E+0	4.31E+0
PENRE	MJ	1.71E+1	6.94E-1	1.87E+0	1.96E+1	1.20E-1	1.32E-1	4.63E-3	-5.32E+0	1.46E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.71E+1	6.94E-1	1.87E+0	1.96E+1	1.20E-1	1.32E-1	4.63E-3	-5.32E+0	1.46E+1
PET	MJ	2.05E+1	6.99E-1	3.81E+0	2.50E+1	1.22E-1	1.02E-1	4.69E-3	-6.36E+0	1.89E+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	2.77E-2	3.95E-5	4.28E-4	2.82E-2	1.28E-5	5.94E-5	4.76E-6	-7.86E-3	2.04E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	8.26E-4	7.45E-7	1.96E-6	8.28E-4	2.89E-7	2.99E-7	6.34E-9	-3.88E-4	4.41E-4
NHWD	kg	4.09E-1	6.88E-3	9.10E-3	4.25E-1	7.01E-3	5.30E-3	2.82E-2	-1.35E-1	3.31E-1
RWD	kg	4.76E-5	4.53E-6	1.48E-6	5.36E-5	7.70E-7	6.36E-7	2.86E-8	-1.79E-5	3.71E-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



Ecochain Technologies BV
H.J.E. Wenckebachweg 123, 1096 AM Amsterdam, The Netherlands
<https://www.ecochain.com>
+31 20 3035 777