

Environmental Profile

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

Ecochain v3.5.71



Product: 3030694 - Hep20 Stopcock Cold Water 22 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	1.27E+0	9.58E-3	1.11E-1	1.39E+0	6.19E-3	1.12E-1	5.83E-4	-4.01E-1	1.11E+0
GWP-f	kg CO2 eq	1.30E+0	9.57E-3	1.02E-1	1.41E+0	6.19E-3	4.19E-2	5.83E-4	-4.15E-1	1.04E+0
GWP-b	kg CO2 eq	-2.73E-2	5.68E-6	8.70E-3	-1.86E-2	3.76E-6	7.01E-2	6.86E-7	1.46E-2	6.60E-2
GWP-luluc	kg CO2 eq	1.63E-3	3.43E-6	2.91E-5	1.67E-3	2.19E-6	-1.27E-6	3.80E-8	-7.01E-4	9.66E-4
ODP	kg CFC11 eq	6.70E-8	2.20E-9	1.24E-8	8.15E-8	1.43E-9	1.62E-9	5.54E-11	-2.06E-8	6.41E-8
AP	mol H+ eq	8.02E-2	5.88E-5	2.05E-4	8.04E-2	3.52E-5	7.62E-5	1.30E-6	-6.73E-3	7.38E-2
EP-fw	kg P eq	6.36E-4	7.81E-8	6.31E-7	6.37E-4	5.09E-8	2.90E-7	1.58E-9	-5.56E-5	5.82E-4
EP-m	kg N eq	4.37E-3	2.05E-5	4.83E-5	4.44E-3	1.26E-5	2.19E-5	9.51E-7	-8.53E-4	3.62E-3
EP-T	mol N eq	6.25E-2	2.26E-4	4.47E-4	6.32E-2	1.39E-4	2.43E-4	4.99E-6	-1.14E-2	5.22E-2
POCP	kg NMVOC eq	1.68E-2	6.41E-5	1.47E-4	1.70E-2	3.97E-5	6.46E-5	1.54E-6	-2.77E-3	1.44E-2
ADP-mm	kg Sb eq	5.03E-3	2.45E-7	7.63E-7	5.03E-3	1.60E-7	3.49E-7	1.26E-9	-2.35E-3	2.69E-3
ADP-f	MJ	1.52E+1	1.46E-1	1.47E+0	1.68E+1	9.50E-2	1.33E-1	3.84E-3	-5.40E+0	1.17E+1
WDP	m3 depriv.	8.82E-1	4.46E-4	1.30E-2	8.95E-1	2.91E-4	1.50E-3	1.33E-4	-3.06E-1	5.91E-1
PM	disease inc.	1.92E-7	8.54E-10	1.50E-9	1.94E-7	5.59E-10	9.73E-10	2.55E-11	-3.13E-8	1.64E-7
IR	kBq U-235 eq	4.48E-2	6.40E-4	1.17E-3	4.66E-2	4.15E-4	5.70E-4	1.64E-5	-1.94E-2	2.82E-2
ETP-fw	CTUe	7.83E+2	1.19E-1	9.94E-1	7.84E+2	7.71E-2	3.80E-1	3.90E-3	-1.13E+2	6.72E+2
HTP-c	CTUh	1.14E-8	4.26E-12	4.23E-11	1.14E-8	2.74E-12	1.63E-11	6.86E-14	-2.49E-9	8.95E-9
HTP-nc	CTUh	9.11E-7	1.41E-10	8.60E-10	9.12E-7	9.19E-11	4.24E-10	2.14E-12	-1.58E-7	7.54E-7
SQP	Pt	1.63E+1	1.24E-1	1.47E-1	1.66E+1	8.13E-2	-1.72E+0	8.47E-3	-9.82E+0	5.12E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	3.26E+0	2.09E-3	1.74E+0	5.00E+0	1.36E-3	-2.66E-1	6.78E-5	-2.05E+0	2.69E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	3.26E+0	2.09E-3	1.74E+0	5.00E+0	1.36E-3	-2.66E-1	6.78E-5	-2.05E+0	2.69E+0
PENRE	MJ	1.63E+1	1.56E-1	1.62E+0	1.81E+1	1.01E-1	1.41E-1	4.07E-3	-5.79E+0	1.25E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.63E+1	1.56E-1	1.62E+0	1.81E+1	1.01E-1	1.41E-1	4.07E-3	-5.79E+0	1.25E+1
PET	MJ	1.95E+1	1.58E-1	3.36E+0	2.31E+1	1.02E-1	-1.25E-1	4.14E-3	-7.84E+0	1.52E+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	2.32E-2	1.64E-5	3.75E-4	2.36E-2	1.07E-5	7.02E-5	4.27E-6	-8.11E-3	1.56E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	6.28E-4	3.71E-7	1.68E-6	6.30E-4	2.43E-7	2.89E-7	5.44E-9	-2.95E-4	3.35E-4
NHWD	kg	3.27E-1	8.96E-3	7.80E-3	3.43E-1	5.89E-3	7.51E-3	2.37E-2	-1.06E-1	2.74E-1
RWD	kg	3.88E-5	9.97E-7	1.27E-6	4.10E-5	6.46E-7	7.52E-7	2.52E-8	-1.59E-5	2.66E-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