

Environmental Profile

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

Ecochain v3.5.71



Product: 3030709 - Hep20 Appliance valve H/C 15x3/4 PF/TM
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

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Results

Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	3.14E-1	2.63E-3	2.75E-2	3.44E-1	1.48E-3	3.08E-2	1.72E-4	-1.03E-1	2.73E-1
GWP-f	kg CO2 eq	3.20E-1	2.62E-3	2.54E-2	3.48E-1	1.47E-3	1.42E-2	1.72E-4	-1.07E-1	2.57E-1
GWP-b	kg CO2 eq	-6.31E-3	1.55E-6	2.03E-3	-4.28E-3	8.96E-7	1.65E-2	1.95E-7	4.17E-3	1.64E-2
GWP-luluc	kg CO2 eq	3.77E-4	9.42E-7	8.85E-6	3.87E-4	5.22E-7	7.70E-8	9.35E-9	-1.65E-4	2.22E-4
ODP	kg CFC11 eq	1.61E-8	6.03E-10	2.96E-9	1.96E-8	3.40E-10	4.38E-10	1.36E-11	-4.93E-9	1.55E-8
AP	mol H+ eq	1.82E-2	1.63E-5	5.81E-5	1.83E-2	8.40E-6	2.01E-5	3.21E-7	-1.57E-3	1.67E-2
EP-fw	kg P eq	1.44E-4	2.14E-8	1.72E-7	1.44E-4	1.21E-8	7.76E-8	3.93E-10	-1.28E-5	1.32E-4
EP-m	kg N eq	1.01E-3	5.65E-6	1.27E-5	1.03E-3	3.01E-6	5.89E-6	2.66E-7	-2.04E-4	8.35E-4
EP-T	mol N eq	1.44E-2	6.23E-5	1.22E-4	1.45E-2	3.31E-5	6.51E-5	1.23E-6	-2.68E-3	1.20E-2
POCP	kg NMVOC eq	3.88E-3	1.77E-5	3.96E-5	3.94E-3	9.47E-6	1.76E-5	3.88E-7	-6.62E-4	3.30E-3
ADP-mm	kg Sb eq	1.14E-3	6.69E-8	2.38E-7	1.14E-3	3.82E-8	8.92E-8	3.10E-10	-5.29E-4	6.07E-4
ADP-f	MJ	3.80E+0	4.01E-2	3.61E-1	4.20E+0	2.26E-2	3.76E-2	9.46E-4	-1.39E+0	2.88E+0
WDP	m3 depriv.	2.09E-1	1.22E-4	3.43E-3	2.12E-1	6.95E-5	5.12E-4	3.04E-5	-7.41E-2	1.39E-1
PM	disease inc.	4.44E-8	2.34E-10	4.26E-10	4.50E-8	1.33E-10	2.61E-10	6.30E-12	-7.56E-9	3.79E-8
IR	kBq U-235 eq	1.05E-2	1.75E-4	3.01E-4	1.09E-2	9.89E-5	1.53E-4	4.10E-6	-4.45E-3	6.73E-3
ETP-fw	CTUe	1.77E+2	3.25E-2	2.95E-1	1.77E+2	1.84E-2	1.02E-1	1.05E-3	-2.56E+1	1.52E+2
HTP-c	CTUh	2.57E-9	1.17E-12	1.23E-11	2.59E-9	6.54E-13	4.72E-12	1.76E-14	-5.65E-10	2.03E-9
HTP-nc	CTUh	2.06E-7	3.86E-11	2.57E-10	2.06E-7	2.19E-11	1.11E-10	5.53E-13	-3.57E-8	1.70E-7
SQP	Pt	3.76E+0	3.39E-2	4.20E-2	3.84E+0	1.94E-2	-3.93E-1	2.12E-3	-2.40E+0	1.06E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	7.51E-1	5.71E-4	5.58E-1	1.31E+0	3.25E-4	-6.10E-2	1.90E-5	-4.97E-1	7.53E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	7.51E-1	5.71E-4	5.58E-1	1.31E+0	3.25E-4	-6.10E-2	1.90E-5	-4.97E-1	7.53E-1
PENRE	MJ	4.07E+0	4.26E-2	3.96E-1	4.51E+0	2.40E-2	3.99E-2	1.00E-3	-1.49E+0	3.09E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	4.07E+0	4.26E-2	3.96E-1	4.51E+0	2.40E-2	3.99E-2	1.00E-3	-1.49E+0	3.09E+0
PET	MJ	4.82E+0	4.32E-2	9.54E-1	5.82E+0	2.44E-2	-2.11E-2	1.02E-3	-1.99E+0	3.84E+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	5.48E-3	4.50E-6	1.02E-4	5.58E-3	2.56E-6	2.38E-5	1.06E-6	-1.95E-3	3.66E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.42E-4	1.02E-7	3.91E-7	1.42E-4	5.79E-8	8.02E-8	1.32E-9	-6.66E-5	7.57E-5
NHWD	kg	7.50E-2	2.45E-3	1.82E-3	7.93E-2	1.40E-3	2.11E-3	5.70E-3	-2.42E-2	6.43E-2
RWD	kg	9.19E-6	2.73E-7	2.96E-7	9.76E-6	1.54E-7	2.01E-7	6.22E-9	-3.67E-6	6.46E-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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