

Environmental Profile

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

Ecochain v3.5.71



Product: 3030678 - Hep20 4Port Manifold22x10 PF/PF SameSide
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	8.70E-1	1.38E-2	6.56E-2	9.50E-1	3.22E-3	1.17E-1	1.46E-3	-4.38E-1	6.33E-1
GWP-f	kg CO2 eq	8.69E-1	1.38E-2	6.10E-2	9.44E-1	3.22E-3	1.17E-1	1.46E-3	-4.37E-1	6.28E-1
GWP-b	kg CO2 eq	1.74E-3	7.96E-6	4.55E-3	6.29E-3	1.95E-6	-1.19E-4	1.47E-6	-9.85E-4	5.19E-3
GWP-luluc	kg CO2 eq	5.47E-5	5.03E-6	2.47E-5	8.44E-5	1.14E-6	1.82E-5	2.85E-8	-2.69E-6	1.01E-4
ODP	kg CFC11 eq	1.25E-8	3.17E-9	6.84E-9	2.26E-8	7.41E-10	2.64E-9	4.00E-11	-5.06E-9	2.09E-8
AP	mol H+ eq	4.24E-3	9.29E-5	1.55E-4	4.48E-3	1.83E-5	1.05E-4	9.91E-7	-1.69E-3	2.92E-3
EP-fw	kg P eq	9.66E-6	1.11E-7	4.45E-7	1.02E-5	2.65E-8	5.35E-7	1.31E-9	-3.37E-6	7.41E-6
EP-m	kg N eq	7.28E-4	3.14E-5	3.21E-5	7.92E-4	6.55E-6	3.16E-5	1.88E-6	-3.31E-4	5.00E-4
EP-T	mol N eq	7.47E-3	3.46E-4	3.14E-4	8.13E-3	7.22E-5	3.45E-4	3.94E-6	-3.36E-3	5.19E-3
POCP	kg NMVOC eq	2.96E-3	9.77E-5	1.01E-4	3.15E-3	2.06E-5	1.06E-4	1.43E-6	-1.34E-3	1.95E-3
ADP-mm	kg Sb eq	2.03E-5	3.48E-7	6.76E-7	2.14E-5	8.32E-8	3.91E-7	9.68E-10	-2.37E-6	1.95E-5
ADP-f	MJ	1.28E+1	2.11E-1	8.54E-1	1.39E+1	4.94E-2	3.12E-1	2.94E-3	-6.37E+0	7.85E+0
WDP	m3 depriv.	2.58E-1	6.36E-4	8.67E-3	2.68E-1	1.51E-4	6.80E-3	1.36E-5	-9.93E-2	1.75E-1
PM	disease inc.	3.59E-8	1.22E-9	1.14E-9	3.83E-8	2.90E-10	1.61E-9	2.00E-11	-1.52E-8	2.50E-8
IR	kBq U-235 eq	4.75E-3	9.21E-4	7.41E-4	6.41E-3	2.16E-4	9.46E-4	1.42E-5	-3.44E-4	7.24E-3
ETP-fw	CTUe	2.34E+0	1.70E-1	8.11E-1	3.32E+0	4.01E-2	5.24E-1	6.21E-3	-3.13E-1	3.57E+0
HTP-c	CTUh	1.97E-10	6.18E-12	3.35E-11	2.37E-10	1.43E-12	4.30E-11	7.79E-14	-3.43E-11	2.47E-10
HTP-nc	CTUh	3.08E-9	2.01E-10	7.10E-10	3.99E-9	4.78E-11	5.70E-10	2.50E-12	-7.39E-10	3.87E-9
SQP	Pt	6.41E-1	1.76E-1	1.13E-1	9.30E-1	4.22E-2	2.43E-1	7.47E-3	-3.26E-2	1.19E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.45E-1	2.97E-3	1.61E+0	1.76E+0	7.08E-4	1.58E-2	1.36E-4	-3.02E-2	1.75E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.45E-1	2.97E-3	1.61E+0	1.76E+0	7.08E-4	1.58E-2	1.36E-4	-3.02E-2	1.75E+0
PENRE	MJ	1.38E+1	2.24E-1	9.35E-1	1.49E+1	5.24E-2	3.32E-1	3.12E-3	-6.89E+0	8.43E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.38E+1	2.24E-1	9.35E-1	1.49E+1	5.24E-2	3.32E-1	3.12E-3	-6.89E+0	8.43E+0
PET	MJ	1.39E+1	2.27E-1	2.55E+0	1.67E+1	5.31E-2	3.48E-1	3.25E-3	-6.92E+0	1.02E+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	6.17E-3	2.34E-5	2.61E-4	6.45E-3	5.59E-6	2.29E-4	3.66E-6	-2.32E-3	4.37E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.70E-6	5.28E-7	8.81E-7	3.11E-6	1.26E-7	5.35E-7	3.51E-9	-9.30E-7	2.85E-6
NHWD	kg	4.16E-2	1.27E-2	4.11E-3	5.84E-2	3.06E-3	1.56E-2	1.28E-2	-3.88E-3	8.60E-2
RWD	kg	5.87E-6	1.44E-6	6.66E-7	7.97E-6	3.36E-7	1.18E-6	1.94E-8	-4.60E-7	9.05E-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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