

Environmental Profile

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

Ecochain v3.5.71



Product: 3030677 - Hep20 4Port Manifold22x10 PF/SP 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	6.90E-1	1.13E-2	5.27E-2	7.54E-1	2.72E-3	9.83E-2	1.23E-3	-3.48E-1	5.08E-1
GWP-f	kg CO2 eq	6.88E-1	1.13E-2	4.91E-2	7.49E-1	2.71E-3	9.83E-2	1.23E-3	-3.47E-1	5.04E-1
GWP-b	kg CO2 eq	1.47E-3	6.49E-6	3.61E-3	5.08E-3	1.65E-6	-1.00E-4	1.24E-6	-8.32E-4	4.15E-3
GWP-luluc	kg CO2 eq	4.55E-5	4.11E-6	2.05E-5	7.00E-5	9.61E-7	1.54E-5	2.41E-8	-2.22E-6	8.42E-5
ODP	kg CFC11 eq	1.04E-8	2.59E-9	5.46E-9	1.85E-8	6.26E-10	2.23E-9	3.37E-11	-4.24E-9	1.71E-8
AP	mol H+ eq	3.47E-3	7.62E-5	1.27E-4	3.68E-3	1.55E-5	8.90E-5	8.36E-7	-1.38E-3	2.41E-3
EP-fw	kg P eq	7.30E-6	9.09E-8	3.63E-7	7.75E-6	2.23E-8	4.52E-7	1.11E-9	-2.43E-6	5.80E-6
EP-m	kg N eq	5.72E-4	2.57E-5	2.61E-5	6.24E-4	5.53E-6	2.66E-5	1.58E-6	-2.59E-4	3.99E-4
EP-T	mol N eq	5.91E-3	2.84E-4	2.57E-4	6.45E-3	6.10E-5	2.91E-4	3.33E-6	-2.65E-3	4.16E-3
POCP	kg NMVOC eq	2.41E-3	8.00E-5	8.27E-5	2.58E-3	1.74E-5	8.93E-5	1.21E-6	-1.09E-3	1.59E-3
ADP-mm	kg Sb eq	1.64E-5	2.83E-7	5.61E-7	1.72E-5	7.02E-8	3.30E-7	8.17E-10	-1.74E-6	1.59E-5
ADP-f	MJ	1.06E+1	1.72E-1	6.85E-1	1.15E+1	4.17E-2	2.63E-1	2.48E-3	-5.30E+0	6.49E+0
WDP	m3 depriv.	1.98E-1	5.18E-4	7.05E-3	2.05E-1	1.28E-4	5.74E-3	1.15E-5	-7.39E-2	1.37E-1
PM	disease inc.	2.92E-8	9.92E-10	9.33E-10	3.11E-8	2.45E-10	1.36E-9	1.69E-11	-1.23E-8	2.04E-8
IR	kBq U-235 eq	3.95E-3	7.52E-4	5.99E-4	5.30E-3	1.82E-4	7.99E-4	1.20E-5	-2.87E-4	6.01E-3
ETP-fw	CTUe	1.92E+0	1.39E-1	6.70E-1	2.73E+0	3.38E-2	4.42E-1	5.24E-3	-2.47E-1	2.96E+0
HTP-c	CTUh	1.61E-10	5.04E-12	2.76E-11	1.93E-10	1.20E-12	3.63E-11	6.57E-14	-2.68E-11	2.04E-10
HTP-nc	CTUh	2.50E-9	1.64E-10	5.87E-10	3.25E-9	4.03E-11	4.81E-10	2.11E-12	-5.83E-10	3.19E-9
SQP	Pt	5.27E-1	1.43E-1	9.27E-2	7.63E-1	3.56E-2	2.05E-1	6.30E-3	-2.70E-2	9.84E-1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.21E-1	2.42E-3	1.34E+0	1.47E+0	5.98E-4	1.33E-2	1.15E-4	-2.50E-2	1.45E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.21E-1	2.42E-3	1.34E+0	1.47E+0	5.98E-4	1.33E-2	1.15E-4	-2.50E-2	1.45E+0
PENRE	MJ	1.14E+1	1.83E-1	7.50E-1	1.24E+1	4.42E-2	2.81E-1	2.63E-3	-5.73E+0	6.97E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.14E+1	1.83E-1	7.50E-1	1.24E+1	4.42E-2	2.81E-1	2.63E-3	-5.73E+0	6.97E+0
PET	MJ	1.16E+1	1.85E-1	2.09E+0	1.38E+1	4.48E-2	2.94E-1	2.75E-3	-5.76E+0	8.43E+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	4.73E-3	1.91E-5	2.13E-4	4.97E-3	4.72E-6	1.93E-4	3.09E-6	-1.73E-3	3.44E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.39E-6	4.31E-7	6.99E-7	2.52E-6	1.07E-7	4.52E-7	2.96E-9	-7.81E-7	2.30E-6
NHWD	kg	3.44E-2	1.03E-2	3.26E-3	4.80E-2	2.58E-3	1.32E-2	1.08E-2	-3.12E-3	7.14E-2
RWD	kg	4.88E-6	1.17E-6	5.29E-7	6.58E-6	2.83E-7	1.00E-6	1.64E-8	-3.83E-7	7.50E-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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