

Environmental Profile

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

Ecochain v3.5.71



Product: 3030728 - Hep20 3Port Manifold22x15 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	7.43E-1	1.23E-2	6.78E-2	8.23E-1	2.80E-3	1.29E-1	1.26E-3	-3.72E-1	5.84E-1
GWP-f	kg CO2 eq	7.55E-1	1.23E-2	6.28E-2	8.30E-1	2.79E-3	9.58E-2	1.26E-3	-3.81E-1	5.48E-1
GWP-b	kg CO2 eq	-1.13E-2	7.10E-6	4.99E-3	-6.34E-3	1.70E-6	3.31E-2	1.26E-6	9.47E-3	3.62E-2
GWP-luluc	kg CO2 eq	1.68E-4	4.48E-6	2.19E-5	1.94E-4	9.88E-7	1.09E-5	2.45E-8	-1.49E-4	5.70E-5
ODP	kg CFC11 eq	1.21E-8	2.83E-9	7.30E-9	2.22E-8	6.44E-10	2.40E-9	3.43E-11	-5.63E-9	1.97E-8
AP	mol H+ eq	3.76E-3	8.26E-5	1.44E-4	3.98E-3	1.59E-5	9.15E-5	8.51E-7	-1.55E-3	2.54E-3
EP-fw	kg P eq	9.24E-6	9.93E-8	4.25E-7	9.77E-6	2.30E-8	4.13E-7	1.13E-9	-4.55E-6	5.66E-6
EP-m	kg N eq	6.52E-4	2.79E-5	3.15E-5	7.11E-4	5.69E-6	2.84E-5	1.61E-6	-3.03E-4	4.44E-4
EP-T	mol N eq	6.70E-3	3.08E-4	3.01E-4	7.31E-3	6.27E-5	3.09E-4	3.39E-6	-3.11E-3	4.57E-3
POCP	kg NMVOC eq	2.62E-3	8.69E-5	9.78E-5	2.80E-3	1.79E-5	9.21E-5	1.23E-6	-1.22E-3	1.70E-3
ADP-mm	kg Sb eq	1.59E-5	3.10E-7	5.90E-7	1.68E-5	7.23E-8	3.57E-7	8.32E-10	-2.00E-6	1.52E-5
ADP-f	MJ	1.13E+1	1.88E-1	8.90E-1	1.24E+1	4.29E-2	2.63E-1	2.53E-3	-5.70E+0	6.97E+0
WDP	m3 depriv.	2.20E-1	5.66E-4	8.48E-3	2.29E-1	1.32E-4	5.57E-3	1.17E-5	-1.12E-1	1.23E-1
PM	disease inc.	3.25E-8	1.08E-9	1.06E-9	3.46E-8	2.52E-10	1.34E-9	1.72E-11	-1.50E-8	2.12E-8
IR	kBq U-235 eq	4.58E-3	8.21E-4	7.43E-4	6.14E-3	1.87E-4	8.34E-4	1.22E-5	-1.56E-3	5.62E-3
ETP-fw	CTUe	4.57E+0	1.52E-1	7.31E-1	5.46E+0	3.48E-2	4.46E-1	5.33E-3	-1.86E+0	4.09E+0
HTP-c	CTUh	1.87E-10	5.50E-12	3.05E-11	2.23E-10	1.24E-12	3.61E-11	6.70E-14	-4.10E-11	2.19E-10
HTP-nc	CTUh	2.96E-9	1.79E-10	6.37E-10	3.77E-9	4.15E-11	4.94E-10	2.15E-12	-1.04E-9	3.27E-9
SQP	Pt	2.51E+0	1.57E-1	1.04E-1	2.77E+0	3.67E-2	-6.66E-1	6.42E-3	-3.83E+0	-1.68E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	4.56E-1	2.65E-3	1.39E+0	1.84E+0	6.15E-4	-1.15E-1	1.17E-4	-7.20E-1	1.01E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	4.56E-1	2.65E-3	1.39E+0	1.84E+0	6.15E-4	-1.15E-1	1.17E-4	-7.20E-1	1.01E+0
PENRE	MJ	1.21E+1	2.00E-1	9.77E-1	1.33E+1	4.55E-2	2.81E-1	2.68E-3	-6.16E+0	7.50E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.21E+1	2.00E-1	9.77E-1	1.33E+1	4.55E-2	2.81E-1	2.68E-3	-6.16E+0	7.50E+0
PET	MJ	1.26E+1	2.02E-1	2.36E+0	1.52E+1	4.61E-2	1.66E-1	2.80E-3	-6.88E+0	8.51E+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	5.34E-3	2.09E-5	2.51E-4	5.61E-3	4.85E-6	1.85E-4	3.15E-6	-2.70E-3	3.11E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.98E-6	4.71E-7	9.64E-7	3.42E-6	1.10E-7	4.48E-7	3.01E-9	-1.02E-6	2.95E-6
NHWD	kg	4.10E-2	1.13E-2	4.50E-3	5.68E-2	2.66E-3	1.39E-2	1.10E-2	-4.97E-3	7.94E-2
RWD	kg	5.42E-6	1.28E-6	7.29E-7	7.42E-6	2.92E-7	1.07E-6	1.67E-8	-1.59E-6	7.21E-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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