

Environmental Profile

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

Ecochain v3.5.71



Product: 3030726 - Hep20 2Port Manifold22x15 PF/SP SameSide
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	5.92E-1	9.64E-3	4.72E-2	6.49E-1	2.21E-3	1.08E-1	9.94E-4	-2.97E-1	4.64E-1
GWP-f	kg CO2 eq	6.04E-1	9.63E-3	4.42E-2	6.58E-1	2.21E-3	7.51E-2	9.94E-4	-3.06E-1	4.30E-1
GWP-b	kg CO2 eq	-1.17E-2	5.55E-6	3.02E-3	-8.66E-3	1.34E-6	3.31E-2	9.99E-7	9.65E-3	3.41E-2
GWP-luluc	kg CO2 eq	1.57E-4	3.50E-6	2.10E-5	1.81E-4	7.83E-7	7.56E-6	1.94E-8	-1.48E-4	4.11E-5
ODP	kg CFC11 eq	9.87E-9	2.21E-9	4.72E-9	1.68E-8	5.10E-10	1.93E-9	2.72E-11	-4.74E-9	1.45E-8
AP	mol H+ eq	3.00E-3	6.45E-5	1.26E-4	3.19E-3	1.26E-5	7.25E-5	6.73E-7	-1.26E-3	2.02E-3
EP-fw	kg P eq	7.59E-6	7.77E-8	3.51E-7	8.02E-6	1.82E-8	3.17E-7	8.91E-10	-4.01E-6	4.35E-6
EP-m	kg N eq	5.26E-4	2.18E-5	2.46E-5	5.72E-4	4.51E-6	2.27E-5	1.27E-6	-2.46E-4	3.55E-4
EP-T	mol N eq	5.38E-3	2.41E-4	2.47E-4	5.87E-3	4.97E-5	2.47E-4	2.68E-6	-2.54E-3	3.63E-3
POCP	kg NMVOC eq	2.09E-3	6.79E-5	7.92E-5	2.24E-3	1.42E-5	7.30E-5	9.75E-7	-9.81E-4	1.34E-3
ADP-mm	kg Sb eq	1.17E-5	2.42E-7	5.82E-7	1.25E-5	5.73E-8	2.87E-7	6.58E-10	-1.62E-6	1.12E-5
ADP-f	MJ	8.99E+0	1.47E-1	6.08E-1	9.75E+0	3.40E-2	2.07E-1	2.00E-3	-4.56E+0	5.43E+0
WDP	m3 depriv.	1.76E-1	4.43E-4	6.67E-3	1.84E-1	1.04E-4	4.35E-3	9.24E-6	-9.55E-2	9.24E-2
PM	disease inc.	2.61E-8	8.48E-10	9.22E-10	2.78E-8	2.00E-10	1.05E-9	1.36E-11	-1.24E-8	1.67E-8
IR	kBq U-235 eq	3.73E-3	6.42E-4	5.54E-4	4.92E-3	1.48E-4	6.63E-4	9.65E-6	-1.50E-3	4.24E-3
ETP-fw	CTUe	4.12E+0	1.18E-1	6.78E-1	4.92E+0	2.76E-2	3.52E-1	4.22E-3	-1.80E+0	3.50E+0
HTP-c	CTUh	1.48E-10	4.30E-12	2.77E-11	1.80E-10	9.82E-13	2.83E-11	5.30E-14	-3.52E-11	1.74E-10
HTP-nc	CTUh	2.36E-9	1.40E-10	5.97E-10	3.10E-9	3.29E-11	3.91E-10	1.70E-12	-9.14E-10	2.61E-9
SQP	Pt	2.36E+0	1.22E-1	9.21E-2	2.57E+0	2.91E-2	-7.10E-1	5.08E-3	-3.83E+0	-1.93E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	4.29E-1	2.07E-3	1.41E+0	1.84E+0	4.87E-4	-1.17E-1	9.23E-5	-7.14E-1	1.01E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	4.29E-1	2.07E-3	1.41E+0	1.84E+0	4.87E-4	-1.17E-1	9.23E-5	-7.14E-1	1.01E+0
PENRE	MJ	9.68E+0	1.56E-1	6.65E-1	1.05E+1	3.61E-2	2.20E-1	2.12E-3	-4.93E+0	5.83E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	9.68E+0	1.56E-1	6.65E-1	1.05E+1	3.61E-2	2.20E-1	2.12E-3	-4.93E+0	5.83E+0
PET	MJ	1.01E+1	1.58E-1	2.07E+0	1.23E+1	3.66E-2	1.03E-1	2.21E-3	-5.64E+0	6.84E+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	4.30E-3	1.63E-5	2.05E-4	4.52E-3	3.84E-6	1.44E-4	2.49E-6	-2.32E-3	2.36E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.53E-6	3.68E-7	5.87E-7	2.49E-6	8.69E-8	3.51E-7	2.38E-9	-8.59E-7	2.07E-6
NHWD	kg	3.23E-2	8.83E-3	2.75E-3	4.39E-2	2.11E-3	1.11E-2	8.71E-3	-4.29E-3	6.15E-2
RWD	kg	4.37E-6	1.00E-6	4.44E-7	5.81E-6	2.31E-7	8.53E-7	1.32E-8	-1.51E-6	5.40E-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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