

Environmental Profile

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

Ecochain v3.5.71



Product: 3030729 - Hep20 3Port Manifold22x15 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

This document and supporting material contain confidential and proprietary business information of Wavin - UK - Doncaster - Verified. These materials may be printed or (photo) copied or otherwise used only with the written consent of Wavin - UK - Doncaster - Verified.

Results

Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	9.44E-1	1.48E-2	7.51E-2	1.03E+0	3.48E-3	1.19E-1	1.57E-3	-4.77E-1	6.82E-1
GWP-f	kg CO2 eq	9.42E-1	1.48E-2	7.02E-2	1.03E+0	3.48E-3	1.19E-1	1.57E-3	-4.76E-1	6.76E-1
GWP-b	kg CO2 eq	2.05E-3	8.52E-6	4.82E-3	6.89E-3	2.11E-6	-1.31E-4	1.57E-6	-1.08E-3	5.68E-3
GWP-luluc	kg CO2 eq	5.27E-5	5.39E-6	3.31E-5	9.13E-5	1.23E-6	1.99E-5	3.05E-8	-2.64E-6	1.10E-4
ODP	kg CFC11 eq	1.16E-8	3.39E-9	7.52E-9	2.26E-8	8.01E-10	2.86E-9	4.28E-11	-5.13E-9	2.11E-8
AP	mol H+ eq	4.59E-3	9.94E-5	1.99E-4	4.88E-3	1.98E-5	1.14E-4	1.06E-6	-1.84E-3	3.18E-3
EP-fw	kg P eq	1.03E-5	1.19E-7	5.55E-7	1.09E-5	2.86E-8	5.83E-7	1.40E-9	-3.67E-6	7.89E-6
EP-m	kg N eq	7.89E-4	3.36E-5	3.91E-5	8.62E-4	7.09E-6	3.40E-5	2.01E-6	-3.62E-4	5.43E-4
EP-T	mol N eq	8.09E-3	3.71E-4	3.92E-4	8.85E-3	7.81E-5	3.72E-4	4.22E-6	-3.67E-3	5.63E-3
POCP	kg NMVOC eq	3.19E-3	1.05E-4	1.26E-4	3.42E-3	2.23E-5	1.14E-4	1.54E-6	-1.46E-3	2.10E-3
ADP-mm	kg Sb eq	1.88E-5	3.72E-7	9.19E-7	2.01E-5	9.00E-8	4.26E-7	1.04E-9	-2.48E-6	1.82E-5
ADP-f	MJ	1.38E+1	2.26E-1	9.68E-1	1.49E+1	5.34E-2	3.40E-1	3.15E-3	-6.91E+0	8.43E+0
WDP	m3 depriv.	2.77E-1	6.80E-4	1.06E-2	2.89E-1	1.64E-4	7.33E-3	1.46E-5	-1.08E-1	1.88E-1
PM	disease inc.	3.87E-8	1.30E-9	1.46E-9	4.15E-8	3.14E-10	1.75E-9	2.15E-11	-1.66E-8	2.70E-8
IR	kBq U-235 eq	4.43E-3	9.86E-4	8.79E-4	6.30E-3	2.33E-4	1.03E-3	1.52E-5	-3.34E-4	7.24E-3
ETP-fw	CTUe	2.36E+0	1.82E-1	1.07E+0	3.62E+0	4.34E-2	5.59E-1	6.64E-3	-3.33E-1	3.89E+0
HTP-c	CTUh	2.10E-10	6.61E-12	4.38E-11	2.61E-10	1.54E-12	4.70E-11	8.34E-14	-3.72E-11	2.72E-10
HTP-nc	CTUh	3.25E-9	2.15E-10	9.43E-10	4.41E-9	5.17E-11	6.17E-10	2.68E-12	-8.03E-10	4.28E-9
SQP	Pt	6.45E-1	1.88E-1	1.46E-1	9.79E-1	4.57E-2	2.65E-1	7.99E-3	-3.26E-2	1.27E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.49E-1	3.18E-3	2.22E+0	2.37E+0	7.66E-4	1.72E-2	1.45E-4	-3.26E-2	2.36E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.49E-1	3.18E-3	2.22E+0	2.37E+0	7.66E-4	1.72E-2	1.45E-4	-3.26E-2	2.36E+0
PENRE	MJ	1.48E+1	2.40E-1	1.06E+0	1.61E+1	5.67E-2	3.62E-1	3.34E-3	-7.48E+0	9.06E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.48E+1	2.40E-1	1.06E+0	1.61E+1	5.67E-2	3.62E-1	3.34E-3	-7.48E+0	9.06E+0
PET	MJ	1.50E+1	2.43E-1	3.28E+0	1.85E+1	5.74E-2	3.79E-1	3.48E-3	-7.51E+0	1.14E+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	6.61E-3	2.51E-5	3.25E-4	6.96E-3	6.04E-6	2.39E-4	3.92E-6	-2.54E-3	4.67E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.70E-6	5.65E-7	9.37E-7	3.20E-6	1.37E-7	5.78E-7	3.75E-9	-9.49E-7	2.97E-6
NHWD	kg	4.46E-2	1.36E-2	4.38E-3	6.25E-2	3.31E-3	1.69E-2	1.37E-2	-4.21E-3	9.22E-2
RWD	kg	5.40E-6	1.54E-6	7.08E-7	7.64E-6	3.63E-7	1.29E-6	2.08E-8	-4.47E-7	8.87E-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



Ecochain Technologies BV
H.J.E. Wenckebachweg 123, 1096 AM Amsterdam, The Netherlands
<https://www.ecochain.com>
+31 20 3035 777