

Environmental Profile

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

Ecochain v3.5.71



Product: 3030689 - Hep20 Pipe Clips Screw Type 22
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	1.58E-2	1.59E-4	3.25E-3	1.92E-2	1.58E-4	9.36E-3	7.40E-5	-8.89E-3	1.99E-2
GWP-f	kg CO2 eq	1.79E-2	1.59E-4	3.11E-3	2.12E-2	1.58E-4	4.45E-3	7.40E-5	-9.16E-3	1.67E-2
GWP-b	kg CO2 eq	-2.10E-3	9.65E-8	1.41E-4	-1.96E-3	9.59E-8	4.91E-3	6.28E-8	2.93E-4	3.24E-3
GWP-luluc	kg CO2 eq	1.91E-5	5.63E-8	2.28E-6	2.14E-5	5.59E-8	-2.01E-9	1.52E-9	-1.59E-5	5.55E-6
ODP	kg CFC11 eq	1.05E-9	3.66E-11	2.71E-10	1.35E-9	3.64E-11	1.13E-10	1.88E-12	-3.80E-10	1.12E-9
AP	mol H+ eq	1.59E-4	9.06E-7	1.24E-5	1.73E-4	9.00E-7	4.14E-6	4.60E-8	-3.81E-5	1.40E-4
EP-fw	kg P eq	5.74E-7	1.31E-9	3.21E-8	6.07E-7	1.30E-9	1.49E-8	6.62E-11	-2.51E-7	3.73E-7
EP-m	kg N eq	1.67E-5	3.24E-7	2.09E-6	1.91E-5	3.22E-7	1.33E-6	2.73E-8	-6.76E-6	1.41E-5
EP-T	mol N eq	1.73E-4	3.57E-6	2.26E-5	1.99E-4	3.55E-6	1.44E-5	1.84E-7	-7.61E-5	1.41E-4
POCP	kg NMVOC eq	6.56E-5	1.02E-6	7.08E-6	7.37E-5	1.01E-6	4.09E-6	6.88E-8	-3.07E-5	4.82E-5
ADP-mm	kg Sb eq	2.93E-7	4.11E-9	6.51E-8	3.62E-7	4.09E-9	1.88E-8	4.85E-11	-5.45E-8	3.30E-7
ADP-f	MJ	4.64E-1	2.44E-3	4.02E-2	5.07E-1	2.42E-3	1.26E-2	1.38E-4	-2.55E-1	2.67E-1
WDP	m3 depriv.	1.46E-2	7.49E-6	5.71E-4	1.52E-2	7.44E-6	2.37E-4	1.59E-6	-6.52E-3	8.90E-3
PM	disease inc.	9.44E-10	1.44E-11	9.11E-11	1.05E-9	1.43E-11	5.86E-11	9.52E-13	-4.37E-10	6.86E-10
IR	kBq U-235 eq	5.46E-4	1.07E-5	4.34E-5	6.00E-4	1.06E-5	4.19E-5	6.25E-7	-2.19E-4	4.33E-4
ETP-fw	CTUe	4.82E-1	1.98E-3	7.16E-2	5.56E-1	1.97E-3	1.44E-2	1.16E-4	-1.85E-1	3.87E-1
HTP-c	CTUh	2.14E-11	7.05E-14	2.86E-12	2.44E-11	7.01E-14	2.15E-12	4.05E-15	-2.38E-12	2.42E-11
HTP-nc	CTUh	2.76E-10	2.36E-12	6.36E-11	3.41E-10	2.35E-12	2.47E-11	7.85E-14	-7.42E-11	2.94E-10
SQP	Pt	3.26E-1	2.09E-3	9.22E-3	3.37E-1	2.07E-3	-1.35E-1	3.51E-4	-3.89E-1	-1.84E-1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	5.76E-2	3.50E-5	1.62E-1	2.20E-1	3.48E-5	-2.07E-2	4.86E-6	-7.27E-2	1.26E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	5.76E-2	3.50E-5	1.62E-1	2.20E-1	3.48E-5	-2.07E-2	4.86E-6	-7.27E-2	1.26E-1
PENRE	MJ	4.98E-1	2.59E-3	4.35E-2	5.44E-1	2.57E-3	1.34E-2	1.47E-4	-2.74E-1	2.86E-1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	4.98E-1	2.59E-3	4.35E-2	5.44E-1	2.57E-3	1.34E-2	1.47E-4	-2.74E-1	2.86E-1
PET	MJ	5.55E-1	2.63E-3	2.06E-1	7.64E-1	2.61E-3	-7.30E-3	1.52E-4	-3.47E-1	4.12E-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	3.04E-4	2.76E-7	1.86E-5	3.23E-4	2.74E-7	7.19E-6	1.66E-7	-1.33E-4	1.98E-4

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.79E-7	6.24E-9	2.80E-8	2.13E-7	6.20E-9	1.93E-8	1.74E-10	-7.09E-8	1.68E-7
NHWD	kg	5.16E-3	1.51E-4	1.33E-4	5.45E-3	1.50E-4	7.66E-4	6.01E-4	-3.36E-4	6.63E-3
RWD	kg	5.38E-7	1.66E-8	2.11E-8	5.76E-7	1.65E-8	5.58E-8	8.91E-10	-2.04E-7	4.45E-7
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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