

Environmental Profile

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

Ecochain v3.5.71



Product: 3030690 - Hep20 Pipe Clips Screw Type 28
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	1.19E-4	3.25E-3	1.92E-2	1.58E-4	4.56E-3	7.40E-5	-8.06E-3	1.59E-2
GWP-f	kg CO2 eq	1.57E-2	1.18E-4	3.11E-3	1.89E-2	1.58E-4	4.56E-3	7.40E-5	-8.03E-3	1.57E-2
GWP-b	kg CO2 eq	8.85E-5	7.19E-8	1.41E-4	2.30E-4	9.59E-8	-6.34E-6	6.28E-8	-2.99E-5	1.94E-4
GWP-luluc	kg CO2 eq	6.18E-6	4.19E-8	2.28E-6	8.50E-6	5.59E-8	8.87E-7	1.52E-9	-1.18E-6	8.26E-6
ODP	kg CFC11 eq	7.56E-10	2.73E-11	2.71E-10	1.05E-9	3.64E-11	1.15E-10	1.88E-12	-2.27E-10	9.81E-10
AP	mol H+ eq	1.47E-4	6.75E-7	1.24E-5	1.60E-4	9.00E-7	4.82E-6	4.60E-8	-2.81E-5	1.38E-4
EP-fw	kg P eq	4.29E-7	9.75E-10	3.21E-8	4.62E-7	1.30E-9	2.56E-8	6.62E-11	-6.82E-8	4.21E-7
EP-m	kg N eq	1.26E-5	2.41E-7	2.09E-6	1.49E-5	3.22E-7	1.40E-6	2.73E-8	-4.44E-6	1.22E-5
EP-T	mol N eq	1.33E-4	2.66E-6	2.26E-5	1.58E-4	3.55E-6	1.54E-5	1.84E-7	-4.89E-5	1.28E-4
POCP	kg NMVOC eq	5.58E-5	7.61E-7	7.08E-6	6.37E-5	1.01E-6	4.86E-6	6.88E-8	-2.41E-5	4.55E-5
ADP-mm	kg Sb eq	2.62E-7	3.06E-9	6.51E-8	3.30E-7	4.09E-9	1.92E-8	4.85E-11	-4.05E-8	3.13E-7
ADP-f	MJ	4.31E-1	1.82E-3	4.02E-2	4.73E-1	2.42E-3	1.54E-2	1.38E-4	-2.36E-1	2.55E-1
WDP	m3 depriv.	1.38E-2	5.58E-6	5.71E-4	1.44E-2	7.44E-6	2.99E-4	1.59E-6	-3.52E-3	1.12E-2
PM	disease inc.	7.39E-10	1.07E-11	9.11E-11	8.41E-10	1.43E-11	7.96E-11	9.52E-13	-2.37E-10	6.99E-10
IR	kBq U-235 eq	4.39E-4	7.95E-6	4.34E-5	4.90E-4	1.06E-5	4.63E-5	6.25E-7	-8.96E-5	4.58E-4
ETP-fw	CTUe	2.13E-1	1.48E-3	7.16E-2	2.86E-1	1.97E-3	1.73E-2	1.16E-4	-2.47E-2	2.81E-1
HTP-c	CTUh	1.95E-11	5.25E-14	2.86E-12	2.24E-11	7.01E-14	2.60E-12	4.05E-15	-1.14E-12	2.39E-11
HTP-nc	CTUh	2.39E-10	1.76E-12	6.36E-11	3.04E-10	2.35E-12	2.71E-11	7.85E-14	-3.20E-11	3.02E-10
SQP	Pt	5.61E-2	1.56E-3	9.22E-3	6.69E-2	2.07E-3	1.23E-2	3.51E-4	-5.20E-3	7.64E-2
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.33E-2	2.61E-5	1.62E-1	1.75E-1	3.48E-5	7.58E-4	4.86E-6	-2.59E-3	1.74E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.33E-2	2.61E-5	1.62E-1	1.75E-1	3.48E-5	7.58E-4	4.86E-6	-2.59E-3	1.74E-1
PENRE	MJ	4.62E-1	1.93E-3	4.35E-2	5.08E-1	2.57E-3	1.64E-2	1.47E-4	-2.54E-1	2.73E-1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	4.62E-1	1.93E-3	4.35E-2	5.08E-1	2.57E-3	1.64E-2	1.47E-4	-2.54E-1	2.73E-1
PET	MJ	4.75E-1	1.96E-3	2.06E-1	6.83E-1	2.61E-3	1.72E-2	1.52E-4	-2.57E-1	4.46E-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	2.75E-4	2.06E-7	1.86E-5	2.94E-4	2.74E-7	8.81E-6	1.66E-7	-5.42E-5	2.49E-4

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.26E-7	4.65E-9	2.80E-8	1.58E-7	6.20E-9	2.55E-8	1.74E-10	-4.45E-8	1.46E-7
NHWD	kg	4.70E-3	1.13E-4	1.33E-4	4.95E-3	1.50E-4	7.59E-4	6.01E-4	-1.68E-4	6.29E-3
RWD	kg	4.24E-7	1.24E-8	2.11E-8	4.57E-7	1.65E-8	5.87E-8	8.91E-10	-8.06E-8	4.53E-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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