

Environmental Profile

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

Ecochain v3.5.71



Product: 3030683 - Hep20 Pipe Clips Spacer 22
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	1.98E-2	1.58E-4	3.25E-3	2.32E-2	2.11E-4	6.08E-3	9.88E-5	-1.05E-2	1.91E-2
GWP-f	kg CO2 eq	1.97E-2	1.58E-4	3.11E-3	2.29E-2	2.11E-4	6.09E-3	9.89E-5	-1.05E-2	1.89E-2
GWP-b	kg CO2 eq	1.06E-4	9.59E-8	1.41E-4	2.48E-4	1.28E-7	-8.45E-6	8.45E-8	-3.85E-5	2.01E-4
GWP-luluc	kg CO2 eq	7.15E-6	5.59E-8	2.28E-6	9.49E-6	7.45E-8	1.18E-6	1.94E-9	-1.66E-6	9.09E-6
ODP	kg CFC11 eq	8.20E-10	3.64E-11	2.71E-10	1.13E-9	4.85E-11	1.54E-10	2.50E-12	-3.17E-10	1.01E-9
AP	mol H+ eq	1.61E-4	9.00E-7	1.24E-5	1.74E-4	1.20E-6	6.43E-6	6.09E-8	-3.50E-5	1.47E-4
EP-fw	kg P eq	4.85E-7	1.30E-9	3.21E-8	5.18E-7	1.73E-9	3.41E-8	8.54E-11	-9.51E-8	4.59E-7
EP-m	kg N eq	1.49E-5	3.22E-7	2.09E-6	1.73E-5	4.29E-7	1.87E-6	3.70E-8	-5.65E-6	1.40E-5
EP-T	mol N eq	1.58E-4	3.55E-6	2.26E-5	1.84E-4	4.73E-6	2.05E-5	2.44E-7	-6.23E-5	1.48E-4
POCP	kg NMVOC eq	6.80E-5	1.01E-6	7.08E-6	7.61E-5	1.35E-6	6.50E-6	9.14E-8	-3.03E-5	5.37E-5
ADP-mm	kg Sb eq	2.96E-7	4.09E-9	6.51E-8	3.65E-7	5.45E-9	2.56E-8	6.34E-11	-5.67E-8	3.40E-7
ADP-f	MJ	5.75E-1	2.42E-3	4.02E-2	6.17E-1	3.23E-3	2.05E-2	1.84E-4	-3.13E-1	3.28E-1
WDP	m3 depriv.	1.66E-2	7.44E-6	5.71E-4	1.72E-2	9.92E-6	4.00E-4	1.80E-6	-4.85E-3	1.28E-2
PM	disease inc.	8.59E-10	1.43E-11	9.11E-11	9.64E-10	1.90E-11	1.06E-10	1.26E-12	-2.95E-10	7.96E-10
IR	kBq U-235 eq	5.09E-4	1.06E-5	4.34E-5	5.63E-4	1.41E-5	6.18E-5	8.36E-7	-1.25E-4	5.15E-4
ETP-fw	CTUe	2.32E-1	1.97E-3	7.16E-2	3.05E-1	2.62E-3	2.31E-2	1.54E-4	-3.42E-2	2.97E-1
HTP-c	CTUh	2.02E-11	7.01E-14	2.86E-12	2.32E-11	9.34E-14	3.29E-12	5.14E-15	-1.55E-12	2.50E-11
HTP-nc	CTUh	2.63E-10	2.35E-12	6.36E-11	3.29E-10	3.13E-12	3.57E-11	1.03E-13	-4.36E-11	3.24E-10
SQP	Pt	6.00E-2	2.07E-3	9.22E-3	7.12E-2	2.77E-3	1.64E-2	4.67E-4	-7.26E-3	8.36E-2
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.53E-2	3.48E-5	1.62E-1	1.77E-1	4.64E-5	1.01E-3	6.62E-6	-3.54E-3	1.75E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.53E-2	3.48E-5	1.62E-1	1.77E-1	4.64E-5	1.01E-3	6.62E-6	-3.54E-3	1.75E-1
PENRE	MJ	6.16E-1	2.57E-3	4.35E-2	6.62E-1	3.43E-3	2.19E-2	1.95E-4	-3.37E-1	3.51E-1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	6.16E-1	2.57E-3	4.35E-2	6.62E-1	3.43E-3	2.19E-2	1.95E-4	-3.37E-1	3.51E-1
PET	MJ	6.32E-1	2.61E-3	2.06E-1	8.40E-1	3.48E-3	2.29E-2	2.02E-4	-3.41E-1	5.26E-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	3.17E-4	2.74E-7	1.86E-5	3.36E-4	3.66E-7	1.18E-5	2.22E-7	-7.41E-5	2.74E-4

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.39E-7	6.20E-9	2.80E-8	1.73E-7	8.27E-9	3.38E-8	2.29E-10	-6.23E-8	1.53E-7
NHWD	kg	4.82E-3	1.50E-4	1.33E-4	5.11E-3	2.00E-4	1.01E-3	8.01E-4	-2.27E-4	6.89E-3
RWD	kg	4.85E-7	1.65E-8	2.11E-8	5.22E-7	2.20E-8	7.83E-8	1.19E-9	-1.13E-7	5.11E-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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