

Environmental Profile

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

Ecochain v3.5.71



Product: 3031753 - Hep20 Conduit Terminal Gn 15x1/2 PF/TF
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	7.86E-1	4.54E-3	7.58E-2	8.67E-1	4.27E-3	1.62E-2	2.28E-4	-2.15E-1	6.72E-1
GWP-f	kg CO2 eq	7.85E-1	4.54E-3	6.96E-2	8.59E-1	4.26E-3	1.63E-2	2.28E-4	-2.11E-1	6.68E-1
GWP-b	kg CO2 eq	3.93E-4	2.72E-6	6.17E-3	6.57E-3	2.59E-6	-1.57E-4	3.06E-7	-3.19E-3	3.23E-3
GWP-luluc	kg CO2 eq	1.06E-3	1.62E-6	1.71E-5	1.08E-3	1.51E-6	4.76E-6	2.49E-8	-3.13E-4	7.70E-4
ODP	kg CFC11 eq	4.58E-8	1.05E-9	8.64E-9	5.55E-8	9.83E-10	6.98E-10	3.66E-11	-1.28E-8	4.44E-8
AP	mol H+ eq	6.07E-2	2.72E-5	1.27E-4	6.09E-2	2.43E-5	4.38E-5	8.50E-7	-4.71E-3	5.62E-2
EP-fw	kg P eq	4.85E-4	3.71E-8	4.05E-7	4.85E-4	3.51E-8	2.35E-7	1.02E-9	-3.91E-5	4.47E-4
EP-m	kg N eq	3.15E-3	9.56E-6	3.17E-5	3.19E-3	8.69E-6	1.07E-5	4.48E-7	-5.48E-4	2.66E-3
EP-T	mol N eq	4.60E-2	1.05E-4	2.87E-4	4.64E-2	9.58E-5	1.21E-4	3.24E-6	-7.61E-3	3.90E-2
POCP	kg NMVOC eq	1.23E-2	3.00E-5	9.49E-5	1.24E-2	2.74E-5	3.46E-5	9.72E-7	-1.78E-3	1.07E-2
ADP-mm	kg Sb eq	3.87E-3	1.17E-7	4.37E-7	3.87E-3	1.10E-7	1.88E-7	8.21E-10	-1.80E-3	2.06E-3
ADP-f	MJ	9.12E+0	6.96E-2	1.01E+0	1.02E+1	6.55E-2	7.16E-2	2.51E-3	-2.80E+0	7.54E+0
WDP	m3 depriv.	6.07E-1	2.12E-4	8.49E-3	6.16E-1	2.01E-4	6.56E-4	1.00E-4	-1.64E-1	4.53E-1
PM	disease inc.	1.38E-7	4.07E-10	9.35E-10	1.39E-7	3.85E-10	6.27E-10	1.66E-11	-1.81E-8	1.22E-7
IR	kBq U-235 eq	3.23E-2	3.04E-4	7.84E-4	3.34E-2	2.86E-4	2.90E-4	1.05E-5	-1.29E-2	2.11E-2
ETP-fw	CTUe	5.98E+2	5.64E-2	5.96E-1	5.99E+2	5.32E-2	2.23E-1	2.06E-3	-8.44E+1	5.14E+2
HTP-c	CTUh	8.70E-9	2.02E-12	2.57E-11	8.72E-9	1.89E-12	8.84E-12	4.10E-14	-1.89E-9	6.84E-9
HTP-nc	CTUh	7.00E-7	6.71E-11	5.13E-10	7.00E-7	6.34E-11	2.45E-10	1.27E-12	-1.21E-7	5.80E-7
SQP	Pt	9.31E+0	5.91E-2	9.08E-2	9.46E+0	5.60E-2	1.03E-1	5.39E-3	-1.69E+0	7.94E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.95E+0	9.93E-4	9.72E-1	2.92E+0	9.39E-4	7.27E-3	3.16E-5	-5.04E-1	2.43E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.95E+0	9.93E-4	9.72E-1	2.92E+0	9.39E-4	7.27E-3	3.16E-5	-5.04E-1	2.43E+0
PENRE	MJ	9.73E+0	7.39E-2	1.11E+0	1.09E+1	6.95E-2	7.60E-2	2.66E-3	-2.99E+0	8.08E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	9.73E+0	7.39E-2	1.11E+0	1.09E+1	6.95E-2	7.60E-2	2.66E-3	-2.99E+0	8.08E+0
PET	MJ	1.17E+1	7.49E-2	2.08E+0	1.38E+1	7.04E-2	8.33E-2	2.69E-3	-3.49E+0	1.05E+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	1.60E-2	7.83E-6	2.41E-4	1.63E-2	7.41E-6	3.32E-5	2.73E-6	-4.43E-3	1.19E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	4.82E-4	1.77E-7	1.19E-6	4.83E-4	1.67E-7	1.74E-7	3.66E-9	-2.26E-4	2.57E-4
NHWD	kg	2.38E-1	4.27E-3	5.52E-3	2.48E-1	4.06E-3	2.88E-3	1.63E-2	-7.86E-2	1.93E-1
RWD	kg	2.75E-5	4.73E-7	8.99E-7	2.89E-5	4.45E-7	3.58E-7	1.65E-8	-1.02E-5	1.94E-5
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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