

Environmental Profile

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

Ecochain v3.5.71



Product: 3029602 - Hep20 Pb Socket Reducer WT 15x10 PF/SP
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	9.90E-2	1.60E-3	6.75E-3	1.07E-1	3.69E-4	1.97E-2	1.71E-4	-5.05E-2	7.70E-2
GWP-f	kg CO2 eq	1.01E-1	1.59E-3	6.31E-3	1.09E-1	3.69E-4	1.48E-2	1.71E-4	-5.07E-2	7.35E-2
GWP-b	kg CO2 eq	-2.03E-3	9.19E-7	4.32E-4	-1.60E-3	2.24E-7	4.90E-3	1.72E-7	2.13E-4	3.52E-3
GWP-luluc	kg CO2 eq	2.04E-5	5.80E-7	2.99E-6	2.39E-5	1.31E-7	1.17E-6	3.34E-9	-1.51E-5	1.02E-5
ODP	kg CFC11 eq	2.12E-9	3.66E-10	6.74E-10	3.16E-9	8.51E-11	2.98E-10	4.68E-12	-8.04E-10	2.75E-9
AP	mol H+ eq	4.96E-4	1.07E-5	1.80E-5	5.25E-4	2.10E-6	1.14E-5	1.16E-7	-2.00E-4	3.39E-4
EP-fw	kg P eq	1.28E-6	1.29E-8	5.01E-8	1.34E-6	3.04E-9	4.99E-8	1.54E-10	-5.60E-7	8.36E-7
EP-m	kg N eq	8.69E-5	3.61E-6	3.52E-6	9.41E-5	7.52E-7	3.57E-6	2.20E-7	-3.95E-5	5.91E-5
EP-T	mol N eq	8.91E-4	3.98E-5	3.53E-5	9.66E-4	8.29E-6	3.89E-5	4.62E-7	-4.05E-4	6.09E-4
POCP	kg NMVOC eq	3.48E-4	1.12E-5	1.13E-5	3.71E-4	2.37E-6	1.14E-5	1.68E-7	-1.57E-4	2.28E-4
ADP-mm	kg Sb eq	2.95E-6	4.01E-8	8.31E-8	3.07E-6	9.55E-9	4.39E-8	1.13E-10	-3.00E-7	2.82E-6
ADP-f	MJ	1.52E+0	2.43E-2	8.69E-2	1.63E+0	5.67E-3	3.25E-2	3.45E-4	-7.45E-1	9.21E-1
WDP	m3 depriv.	3.07E-2	7.33E-5	9.53E-4	3.18E-2	1.74E-5	7.22E-4	1.59E-6	-1.41E-2	1.84E-2
PM	disease inc.	4.34E-9	1.40E-10	1.32E-10	4.61E-9	3.33E-11	1.61E-10	2.35E-12	-1.90E-9	2.91E-9
IR	kBq U-235 eq	7.95E-4	1.06E-4	7.91E-5	9.81E-4	2.48E-5	1.03E-4	1.66E-6	-1.77E-4	9.32E-4
ETP-fw	CTUe	5.67E-1	1.96E-2	9.69E-2	6.83E-1	4.60E-3	5.88E-2	7.27E-4	-1.97E-1	5.50E-1
HTP-c	CTUh	2.47E-11	7.12E-13	3.96E-12	2.93E-11	1.64E-13	4.40E-12	9.13E-15	-5.14E-12	2.88E-11
HTP-nc	CTUh	4.00E-10	2.32E-11	8.52E-11	5.08E-10	5.49E-12	6.28E-11	2.93E-13	-1.26E-10	4.51E-10
SQP	Pt	3.49E-1	2.03E-2	1.32E-2	3.83E-1	4.85E-3	-1.20E-1	8.75E-4	-3.88E-1	-1.19E-1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	6.26E-2	3.43E-4	2.01E-1	2.64E-1	8.13E-5	-1.97E-2	1.59E-5	-7.36E-2	1.71E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	6.26E-2	3.43E-4	2.01E-1	2.64E-1	8.13E-5	-1.97E-2	1.59E-5	-7.36E-2	1.71E-1
PENRE	MJ	1.63E+0	2.58E-2	9.50E-2	1.75E+0	6.02E-3	3.46E-2	3.65E-4	-8.06E-1	9.88E-1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.63E+0	2.58E-2	9.50E-2	1.75E+0	6.02E-3	3.46E-2	3.65E-4	-8.06E-1	9.88E-1
PET	MJ	1.69E+0	2.62E-2	2.96E-1	2.02E+0	6.10E-3	1.49E-2	3.81E-4	-8.80E-1	1.16E+0
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	7.46E-4	2.70E-6	2.93E-5	7.78E-4	6.41E-7	2.63E-5	4.29E-7	-3.39E-4	4.66E-4

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	2.65E-7	6.10E-8	8.39E-8	4.10E-7	1.45E-8	5.55E-8	4.11E-10	-1.45E-7	3.35E-7
NHWD	kg	5.21E-3	1.46E-3	3.93E-4	7.06E-3	3.51E-4	1.80E-3	1.50E-3	-6.10E-4	1.01E-2
RWD	kg	9.82E-7	1.66E-7	6.34E-8	1.21E-6	3.85E-8	1.31E-7	2.27E-9	-1.87E-7	1.20E-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



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