

Environmental Profile

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

Ecochain v3.5.71



Product: 3029615 - Hep20 Pb Elbow 90° WT 10
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

This document and supporting material contain confidential and proprietary business information of Wavin - UK - Doncaster - Verified. These materials may be printed or (photo) copied or otherwise used only with the written consent of Wavin - UK - Doncaster - Verified.

Results

Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	1.64E-1	2.47E-3	1.33E-2	1.80E-1	5.55E-4	3.00E-2	2.63E-4	-8.16E-2	1.29E-1
GWP-f	kg CO2 eq	1.66E-1	2.47E-3	1.25E-2	1.81E-1	5.54E-4	2.46E-2	2.63E-4	-8.28E-2	1.23E-1
GWP-b	kg CO2 eq	-1.99E-3	1.43E-6	7.15E-4	-1.27E-3	3.36E-7	5.36E-3	2.64E-7	1.21E-3	5.29E-3
GWP-luluc	kg CO2 eq	3.22E-5	8.98E-7	7.55E-6	4.07E-5	1.96E-7	2.17E-6	5.12E-9	-2.27E-5	2.04E-5
ODP	kg CFC11 eq	3.84E-9	5.67E-10	1.22E-9	5.63E-9	1.28E-10	4.59E-10	7.18E-12	-1.32E-9	4.90E-9
AP	mol H+ eq	7.77E-4	1.64E-5	4.28E-5	8.36E-4	3.16E-6	1.80E-5	1.78E-7	-3.10E-4	5.48E-4
EP-fw	kg P eq	2.26E-6	2.00E-8	1.14E-7	2.39E-6	4.56E-9	7.99E-8	2.36E-10	-9.68E-7	1.51E-6
EP-m	kg N eq	1.44E-4	5.56E-6	7.71E-6	1.57E-4	1.13E-6	5.62E-6	3.37E-7	-6.51E-5	9.92E-5
EP-T	mol N eq	1.47E-3	6.14E-5	8.05E-5	1.61E-3	1.24E-5	6.12E-5	7.08E-7	-6.60E-4	1.02E-3
POCP	kg NMVOC eq	5.49E-4	1.73E-5	2.55E-5	5.92E-4	3.56E-6	1.81E-5	2.58E-7	-2.44E-4	3.70E-4
ADP-mm	kg Sb eq	5.69E-6	6.23E-8	2.13E-7	5.96E-6	1.43E-8	6.71E-8	1.74E-10	-5.62E-7	5.48E-6
ADP-f	MJ	2.35E+0	3.77E-2	1.67E-1	2.56E+0	8.51E-3	5.03E-2	5.28E-4	-1.14E+0	1.48E+0
WDP	m3 depriv.	5.36E-2	1.14E-4	2.09E-3	5.58E-2	2.61E-5	1.13E-3	2.44E-6	-2.42E-2	3.27E-2
PM	disease inc.	6.93E-9	2.18E-10	3.14E-10	7.46E-9	5.00E-11	2.56E-10	3.60E-12	-2.98E-9	4.79E-9
IR	kBq U-235 eq	1.43E-3	1.65E-4	1.66E-4	1.76E-3	3.72E-5	1.58E-4	2.55E-6	-2.79E-4	1.68E-3
ETP-fw	CTUe	9.16E-1	3.04E-2	2.40E-1	1.19E+0	6.91E-3	9.41E-2	1.12E-3	-3.03E-1	9.86E-1
HTP-c	CTUh	3.91E-11	1.10E-12	9.67E-12	4.98E-11	2.46E-13	6.83E-12	1.40E-14	-8.38E-12	4.85E-11
HTP-nc	CTUh	6.54E-10	3.60E-11	2.12E-10	9.02E-10	8.23E-12	9.69E-11	4.49E-13	-2.01E-10	8.07E-10
SQP	Pt	4.50E-1	3.15E-2	3.16E-2	5.13E-1	7.28E-3	-1.06E-1	1.34E-3	-5.79E-1	-1.64E-1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	8.36E-2	5.33E-4	5.25E-1	6.09E-1	1.22E-4	-1.88E-2	2.44E-5	-1.10E-1	4.81E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	8.36E-2	5.33E-4	5.25E-1	6.09E-1	1.22E-4	-1.88E-2	2.44E-5	-1.10E-1	4.81E-1
PENRE	MJ	2.54E+0	4.01E-2	1.82E-1	2.76E+0	9.03E-3	5.36E-2	5.60E-4	-1.23E+0	1.59E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	2.54E+0	4.01E-2	1.82E-1	2.76E+0	9.03E-3	5.36E-2	5.60E-4	-1.23E+0	1.59E+0
PET	MJ	2.62E+0	4.06E-2	7.07E-1	3.37E+0	9.15E-3	3.48E-2	5.85E-4	-1.34E+0	2.07E+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	1.30E-3	4.20E-6	6.64E-5	1.37E-3	9.63E-7	4.34E-5	6.58E-7	-5.79E-4	8.34E-4

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	4.47E-7	9.47E-8	1.40E-7	6.82E-7	2.18E-8	8.92E-8	6.30E-10	-2.37E-7	5.56E-7
NHWD	kg	8.14E-3	2.27E-3	6.58E-4	1.11E-2	5.27E-4	2.75E-3	2.30E-3	-9.64E-4	1.57E-2
RWD	kg	1.79E-6	2.57E-7	1.06E-7	2.15E-6	5.78E-8	2.01E-7	3.48E-9	-2.98E-7	2.12E-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



Ecochain Technologies BV
H.J.E. Wenckebachweg 123, 1096 AM Amsterdam, The Netherlands
<https://www.ecochain.com>
+31 20 3035 777