

Environmental Profile

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

Ecochain v3.5.71



Product: 3075291 - HepS PVCU Spigot Bend 45° BK 110
Unit: 1 piece
Manufacturer: Wavin - UK - Chippenham - 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



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 - Chippenham - 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	8.30E-1	3.33E-2	8.05E-2	9.44E-1	1.00E-2	3.40E-1	3.23E-3	-4.62E-1	8.36E-1
GWP-f	kg CO2 eq	8.26E-1	3.32E-2	7.87E-2	9.38E-1	1.00E-2	3.40E-1	3.23E-3	-4.59E-1	8.33E-1
GWP-b	kg CO2 eq	3.72E-3	-4.52E-6	1.71E-3	5.42E-3	6.07E-6	-2.81E-4	3.96E-6	-2.91E-3	2.24E-3
GWP-luluc	kg CO2 eq	6.62E-4	2.09E-5	7.12E-5	7.54E-4	3.54E-6	1.19E-4	8.35E-8	-2.67E-4	6.10E-4
ODP	kg CFC11 eq	4.00E-7	6.85E-9	6.62E-9	4.14E-7	2.31E-9	3.20E-8	1.18E-10	-2.08E-7	2.40E-7
AP	mol H+ eq	3.82E-3	9.18E-4	4.36E-4	5.17E-3	5.70E-5	5.59E-4	2.86E-6	-1.61E-3	4.18E-3
EP-fw	kg P eq	3.54E-5	1.61E-7	1.11E-6	3.67E-5	8.23E-8	3.96E-6	3.76E-9	-1.52E-5	2.55E-5
EP-m	kg N eq	6.43E-4	2.29E-4	8.23E-5	9.54E-4	2.04E-5	1.38E-4	1.89E-6	-2.83E-4	8.32E-4
EP-T	mol N eq	7.02E-3	2.55E-3	9.04E-4	1.05E-2	2.25E-4	1.52E-3	1.14E-5	-3.01E-3	9.22E-3
POCP	kg NMVOC eq	2.53E-3	6.64E-4	3.82E-4	3.58E-3	6.42E-5	4.54E-4	3.95E-6	-1.06E-3	3.04E-3
ADP-mm	kg Sb eq	4.17E-4	3.60E-7	2.06E-6	4.20E-4	2.59E-7	2.18E-6	2.88E-9	-8.42E-6	4.14E-4
ADP-f	MJ	2.18E+1	4.41E-1	8.71E-1	2.32E+1	1.54E-1	1.52E+0	8.60E-3	-1.10E+1	1.38E+1
WDP	m3 depriv.	1.26E+0	7.94E-4	2.55E-2	1.28E+0	4.71E-4	5.93E-2	5.84E-5	-5.96E-1	7.47E-1
PM	disease inc.	2.72E-8	1.38E-9	3.01E-9	3.16E-8	9.03E-10	6.98E-9	5.92E-11	-1.02E-8	2.94E-8
IR	kBq U-235 eq	4.54E-2	1.90E-3	2.04E-3	4.94E-2	6.71E-4	5.32E-3	3.95E-5	-1.93E-2	3.61E-2
ETP-fw	CTUe	1.67E+1	2.99E-1	2.38E+0	1.94E+1	1.25E-1	1.14E+1	1.26E-1	-5.75E+0	2.52E+1
HTP-c	CTUh	5.79E-10	1.81E-11	9.33E-11	6.90E-10	4.44E-12	1.78E-10	2.37E-13	-2.20E-10	6.53E-10
HTP-nc	CTUh	1.84E-8	2.69E-10	4.59E-9	2.32E-8	1.49E-10	4.08E-9	2.44E-11	-7.54E-9	1.99E-8
SQP	Pt	2.82E+0	1.27E-1	3.08E-1	3.26E+0	1.31E-1	9.52E-1	2.20E-2	-1.07E+0	3.29E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.01E+0	3.68E-3	5.09E+0	6.10E+0	2.20E-3	1.09E-1	3.20E-4	-4.33E-1	5.78E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.01E+0	3.68E-3	5.09E+0	6.10E+0	2.20E-3	1.09E-1	3.20E-4	-4.33E-1	5.78E+0
PENRE	MJ	2.34E+1	4.68E-1	9.24E-1	2.48E+1	1.63E-1	1.62E+0	9.13E-3	-1.19E+1	1.47E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	2.34E+1	4.68E-1	9.24E-1	2.48E+1	1.63E-1	1.62E+0	9.13E-3	-1.19E+1	1.47E+1
PET	MJ	2.44E+1	4.71E-1	6.01E+0	3.09E+1	1.65E-1	1.73E+0	9.45E-3	-1.23E+1	2.05E+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	1.48E-2	2.86E-5	7.58E-4	1.56E-2	1.74E-5	1.64E-3	1.05E-5	-6.29E-3	1.09E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	6.36E-5	5.56E-7	6.85E-6	7.10E-5	3.93E-7	2.48E-6	1.05E-8	-9.03E-6	6.49E-5
NHWD	kg	7.62E-2	6.60E-3	1.42E-3	8.42E-2	9.52E-3	5.90E-2	3.80E-2	-3.18E-2	1.59E-1
RWD	kg	4.18E-5	3.05E-6	1.81E-6	4.67E-5	1.04E-6	5.72E-6	5.60E-8	-1.71E-5	3.64E-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



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