

Environmental Profile

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

Ecochain v3.5.71



Product: 3075298 - HepS PVCU Bend 87.5° BK 110 D/S
 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

A1 Raw material supply A2 Transport A3 Manufacturing

Construction process stage

A4 Transport gate to site
 A5 Assembly / Construction installation process

Use stage

B1 Use B2 Maintenance B3 Repair B4 Replacement B5 Refurbishment
 B6 Operational energy use B7 Operational water use

End-of-Life stage

C1 De-construction demolition C2 Transport C3 Waste processing
 C4 Disposal

Benefits and loads beyond the system boundaries

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	1.02E+0	4.43E-2	9.68E-2	1.16E+0	1.35E-2	3.76E-1	4.41E-3	-5.70E-1	9.87E-1
GWP-f	kg CO2 eq	1.01E+0	4.43E-2	9.53E-2	1.15E+0	1.34E-2	3.76E-1	4.40E-3	-5.65E-1	9.83E-1
GWP-b	kg CO2 eq	6.90E-3	-5.18E-6	1.38E-3	8.28E-3	8.17E-6	-3.85E-4	5.33E-6	-3.85E-3	4.05E-3
GWP-luluc	kg CO2 eq	8.06E-4	2.76E-5	9.69E-5	9.30E-4	4.76E-6	1.57E-4	1.12E-7	-3.53E-4	7.38E-4
ODP	kg CFC11 eq	5.22E-7	9.15E-9	6.94E-9	5.38E-7	3.10E-9	4.17E-8	1.58E-10	-2.71E-7	3.12E-7
AP	mol H+ eq	4.70E-3	1.20E-3	5.53E-4	6.46E-3	7.66E-5	7.27E-4	3.85E-6	-2.12E-3	5.15E-3
EP-fw	kg P eq	4.40E-5	2.19E-7	1.38E-6	4.56E-5	1.11E-7	5.19E-6	5.06E-9	-2.01E-5	3.08E-5
EP-m	kg N eq	7.83E-4	3.00E-4	9.60E-5	1.18E-3	2.74E-5	1.77E-4	2.63E-6	-3.66E-4	1.02E-3
EP-T	mol N eq	8.54E-3	3.33E-3	1.07E-3	1.29E-2	3.02E-4	1.95E-3	1.54E-5	-3.90E-3	1.13E-2
POCP	kg NMVOC eq	3.05E-3	8.69E-4	4.19E-4	4.34E-3	8.64E-5	5.87E-4	5.32E-6	-1.37E-3	3.65E-3
ADP-mm	kg Sb eq	5.55E-4	4.96E-7	2.81E-6	5.58E-4	3.48E-7	2.87E-6	3.87E-9	-1.12E-5	5.51E-4
ADP-f	MJ	2.71E+1	5.89E-1	1.06E+0	2.87E+1	2.06E-1	2.01E+0	1.16E-2	-1.40E+1	1.70E+1
WDP	m3 depriv.	1.59E+0	1.08E-3	2.89E-2	1.62E+0	6.34E-4	7.76E-2	7.77E-5	-7.90E-1	9.06E-1
PM	disease inc.	3.37E-8	1.90E-9	3.89E-9	3.95E-8	1.21E-9	9.15E-9	7.96E-11	-1.36E-8	3.64E-8
IR	kBq U-235 eq	5.90E-2	2.54E-3	2.22E-3	6.38E-2	9.02E-4	6.98E-3	5.32E-5	-2.54E-2	4.63E-2
ETP-fw	CTUe	2.10E+1	4.03E-1	3.14E+0	2.45E+1	1.68E-1	1.48E+1	1.63E-1	-7.56E+0	3.20E+1
HTP-c	CTUh	7.35E-10	2.40E-11	1.23E-10	8.82E-10	5.97E-12	2.27E-10	3.19E-13	-2.89E-10	8.26E-10
HTP-nc	CTUh	2.34E-8	3.66E-10	4.89E-9	2.87E-8	2.00E-10	5.28E-9	3.19E-11	-9.96E-9	2.42E-8
SQP	Pt	3.38E+0	1.79E-1	3.99E-1	3.96E+0	1.77E-1	1.26E+0	2.96E-2	-1.40E+0	4.02E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.24E+0	5.02E-3	7.01E+0	8.26E+0	2.96E-3	1.43E-1	4.33E-4	-5.73E-1	7.83E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.24E+0	5.02E-3	7.01E+0	8.26E+0	2.96E-3	1.43E-1	4.33E-4	-5.73E-1	7.83E+0
PENRE	MJ	2.90E+1	6.25E-1	1.12E+0	3.08E+1	2.19E-1	2.14E+0	1.23E-2	-1.51E+1	1.81E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	2.90E+1	6.25E-1	1.12E+0	3.08E+1	2.19E-1	2.14E+0	1.23E-2	-1.51E+1	1.81E+1
PET	MJ	3.03E+1	6.30E-1	8.13E+0	3.91E+1	2.22E-1	2.28E+0	1.27E-2	-1.56E+1	2.59E+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	1.81E-2	3.91E-5	8.93E-4	1.91E-2	2.34E-5	2.14E-3	1.42E-5	-8.32E-3	1.29E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	8.31E-5	7.66E-7	5.82E-6	8.97E-5	5.28E-7	3.25E-6	1.41E-8	-1.10E-5	8.25E-5
NHWD	kg	9.24E-2	9.63E-3	1.27E-3	1.03E-1	1.28E-2	7.48E-2	5.12E-2	-4.19E-2	2.00E-1
RWD	kg	5.54E-5	4.08E-6	1.54E-6	6.11E-5	1.40E-6	7.51E-6	7.53E-8	-2.24E-5	4.77E-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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