

# Environmental Profile

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

Ecochain v3.5.71



Product: 3079703 - Wavin PVCU Boss Pipe BK 110x40 D/SW  
 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



When specifying a PVC-U Soil system for your industrial and commercial project, you need a system that has been designed specifically for that environment. Wavin Solvent Soil is a PVC-U system that enables space saving and flexible installations for efficient removal of waste water.

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	☑	☑	☑	☑									

## 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	6.17E-1	2.57E-2	6.86E-2	7.11E-1	8.02E-3	2.38E-1	2.58E-3	-3.43E-1	6.17E-1
GWP-f	kg CO2 eq	6.12E-1	2.57E-2	6.72E-2	7.05E-1	8.02E-3	2.38E-1	2.58E-3	-3.40E-1	6.13E-1
GWP-b	kg CO2 eq	4.66E-3	-4.93E-6	1.31E-3	5.96E-3	4.87E-6	-2.19E-4	3.18E-6	-2.30E-3	3.45E-3
GWP-luluc	kg CO2 eq	4.99E-4	1.67E-5	6.31E-5	5.78E-4	2.84E-6	9.67E-5	6.78E-8	-2.13E-4	4.65E-4
ODP	kg CFC11 eq	3.28E-7	5.25E-9	5.42E-9	3.39E-7	1.85E-9	2.63E-8	9.51E-11	-1.65E-7	2.02E-7
AP	mol H+ eq	2.84E-3	7.52E-4	3.77E-4	3.97E-3	4.57E-5	4.48E-4	2.32E-6	-1.26E-3	3.20E-3
EP-fw	kg P eq	2.71E-5	1.18E-7	9.54E-7	2.82E-5	6.60E-8	3.22E-6	3.05E-9	-1.22E-5	1.93E-5
EP-m	kg N eq	4.78E-4	1.87E-4	6.95E-5	7.34E-4	1.63E-5	1.09E-4	1.47E-6	-2.19E-4	6.42E-4
EP-T	mol N eq	5.21E-3	2.08E-3	7.67E-4	8.05E-3	1.80E-4	1.20E-3	9.23E-6	-2.33E-3	7.11E-3
POCP	kg NMVOC eq	1.81E-3	5.40E-4	3.17E-4	2.66E-3	5.15E-5	3.59E-4	3.18E-6	-8.15E-4	2.26E-3
ADP-mm	kg Sb eq	3.57E-4	2.49E-7	1.83E-6	3.59E-4	2.07E-7	1.76E-6	2.33E-9	-6.91E-6	3.54E-4
ADP-f	MJ	1.60E+1	3.37E-1	7.44E-1	1.71E+1	1.23E-1	1.22E+0	6.95E-3	-8.28E+0	1.01E+1
WDP	m3 depriv.	9.89E-1	5.69E-4	2.14E-2	1.01E+0	3.78E-4	4.85E-2	4.89E-5	-4.76E-1	5.85E-1
PM	disease inc.	1.98E-8	9.76E-10	2.62E-9	2.34E-8	7.24E-10	5.55E-9	4.78E-11	-8.03E-9	2.17E-8
IR	kBq U-235 eq	3.47E-2	1.45E-3	1.69E-3	3.78E-2	5.38E-4	4.29E-3	3.19E-5	-1.54E-2	2.73E-2
ETP-fw	CTUe	1.31E+1	2.25E-1	2.09E+0	1.54E+1	9.99E-2	9.40E+0	1.04E-1	-4.58E+0	2.04E+1
HTP-c	CTUh	4.60E-10	1.42E-11	8.18E-11	5.56E-10	3.56E-12	1.39E-10	1.93E-13	-1.75E-10	5.25E-10
HTP-nc	CTUh	1.47E-8	1.95E-10	3.78E-9	1.87E-8	1.19E-10	3.29E-9	2.01E-11	-6.02E-9	1.61E-8
SQP	Pt	2.03E+0	8.02E-2	2.68E-1	2.38E+0	1.05E-1	7.56E-1	1.77E-2	-8.51E-1	2.41E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	7.52E-1	2.63E-3	4.53E+0	5.28E+0	1.77E-3	8.86E-2	2.56E-4	-3.46E-1	5.03E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	7.52E-1	2.63E-3	4.53E+0	5.28E+0	1.77E-3	8.86E-2	2.56E-4	-3.46E-1	5.03E+0
PENRE	MJ	1.71E+1	3.57E-1	7.90E-1	1.83E+1	1.31E-1	1.30E+0	7.37E-3	-8.92E+0	1.08E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.71E+1	3.57E-1	7.90E-1	1.83E+1	1.31E-1	1.30E+0	7.37E-3	-8.92E+0	1.08E+1
PET	MJ	1.79E+1	3.60E-1	5.32E+0	2.36E+1	1.32E-1	1.39E+0	7.63E-3	-9.27E+0	1.58E+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	1.10E-2	2.05E-5	6.42E-4	1.16E-2	1.39E-5	1.34E-3	8.49E-6	-4.99E-3	8.02E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	5.45E-5	3.87E-7	5.31E-6	6.02E-5	3.15E-7	1.98E-6	8.49E-9	-6.78E-6	5.57E-5
NHWD	kg	5.82E-2	3.65E-3	1.12E-3	6.29E-2	7.63E-3	4.51E-2	3.07E-2	-2.53E-2	1.21E-1
RWD	kg	3.17E-5	2.33E-6	1.41E-6	3.54E-5	8.37E-7	4.58E-6	4.52E-8	-1.36E-5	2.73E-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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