

# Environmental Profile

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

Ecochain v3.5.71



Product: 3079704 - Wavin PVCU Boss Pipe PF BK 110x32 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	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	6.08E-1	2.54E-2	6.62E-2	7.00E-1	7.93E-3	2.33E-1	2.53E-3	-3.38E-1	6.05E-1
GWP-f	kg CO2 eq	6.03E-1	2.54E-2	6.49E-2	6.94E-1	7.92E-3	2.33E-1	2.53E-3	-3.36E-1	6.02E-1
GWP-b	kg CO2 eq	4.68E-3	-5.08E-6	1.31E-3	5.99E-3	4.81E-6	-2.16E-4	3.14E-6	-2.29E-3	3.49E-3
GWP-luluc	kg CO2 eq	4.95E-4	1.66E-5	6.02E-5	5.72E-4	2.80E-6	9.62E-5	6.70E-8	-2.13E-4	4.58E-4
ODP	kg CFC11 eq	3.27E-7	5.19E-9	5.30E-9	3.38E-7	1.83E-9	2.62E-8	9.39E-11	-1.65E-7	2.01E-7
AP	mol H+ eq	2.81E-3	7.50E-4	3.63E-4	3.92E-3	4.51E-5	4.45E-4	2.29E-6	-1.25E-3	3.16E-3
EP-fw	kg P eq	2.69E-5	1.16E-7	9.18E-7	2.80E-5	6.52E-8	3.21E-6	3.01E-9	-1.21E-5	1.91E-5
EP-m	kg N eq	4.72E-4	1.86E-4	6.73E-5	7.26E-4	1.62E-5	1.08E-4	1.44E-6	-2.17E-4	6.34E-4
EP-T	mol N eq	5.14E-3	2.07E-3	7.42E-4	7.95E-3	1.78E-4	1.19E-3	9.11E-6	-2.31E-3	7.02E-3
POCP	kg NMVOC eq	1.78E-3	5.38E-4	3.09E-4	2.62E-3	5.09E-5	3.56E-4	3.14E-6	-8.05E-4	2.23E-3
ADP-mm	kg Sb eq	3.56E-4	2.42E-7	1.74E-6	3.58E-4	2.05E-7	1.75E-6	2.30E-9	-6.85E-6	3.53E-4
ADP-f	MJ	1.57E+1	3.32E-1	7.18E-1	1.67E+1	1.22E-1	1.22E+0	6.86E-3	-8.15E+0	9.93E+0
WDP	m3 depriv.	9.83E-1	5.56E-4	2.08E-2	1.00E+0	3.73E-4	4.84E-2	4.85E-5	-4.74E-1	5.80E-1
PM	disease inc.	1.94E-8	9.52E-10	2.51E-9	2.29E-8	7.15E-10	5.51E-9	4.72E-11	-7.94E-9	2.12E-8
IR	kBq U-235 eq	3.43E-2	1.43E-3	1.65E-3	3.74E-2	5.32E-4	4.27E-3	3.14E-5	-1.53E-2	2.69E-2
ETP-fw	CTUe	1.30E+1	2.21E-1	2.00E+0	1.52E+1	9.88E-2	9.39E+0	1.04E-1	-4.56E+0	2.02E+1
HTP-c	CTUh	4.58E-10	1.41E-11	7.83E-11	5.50E-10	3.52E-12	1.38E-10	1.91E-13	-1.74E-10	5.18E-10
HTP-nc	CTUh	1.47E-8	1.91E-10	3.69E-9	1.85E-8	1.18E-10	3.28E-9	2.01E-11	-6.01E-9	1.59E-8
SQP	Pt	2.01E+0	7.67E-2	2.57E-1	2.34E+0	1.04E-1	7.50E-1	1.75E-2	-8.47E-1	2.36E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	7.46E-1	2.57E-3	4.31E+0	5.06E+0	1.75E-3	8.82E-2	2.53E-4	-3.44E-1	4.81E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	7.46E-1	2.57E-3	4.31E+0	5.06E+0	1.75E-3	8.82E-2	2.53E-4	-3.44E-1	4.81E+0
PENRE	MJ	1.68E+1	3.53E-1	7.62E-1	1.79E+1	1.29E-1	1.29E+0	7.28E-3	-8.78E+0	1.06E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.68E+1	3.53E-1	7.62E-1	1.79E+1	1.29E-1	1.29E+0	7.28E-3	-8.78E+0	1.06E+1
PET	MJ	1.76E+1	3.55E-1	5.07E+0	2.30E+1	1.31E-1	1.38E+0	7.53E-3	-9.12E+0	1.54E+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	1.09E-2	2.00E-5	6.21E-4	1.15E-2	1.38E-5	1.33E-3	8.38E-6	-4.96E-3	7.92E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	5.44E-5	3.76E-7	5.29E-6	6.01E-5	3.11E-7	1.97E-6	8.38E-9	-6.73E-6	5.57E-5
NHWD	kg	5.77E-2	3.40E-3	1.11E-3	6.22E-2	7.54E-3	4.47E-2	3.03E-2	-2.52E-2	1.20E-1
RWD	kg	3.13E-5	2.30E-6	1.40E-6	3.50E-5	8.27E-7	4.55E-6	4.46E-8	-1.35E-5	2.69E-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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