Environmental Profile

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

Ecochain v3.5.71

Product:	3079708 - Wavin PVCU Strap Boss BK 110
Unit:	1 piece
Manufacturer:	Wavin - UK - Chippenham - Verified

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.

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

Results

Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	2.05E-1	6.77E-3	1.95E-2	2.31E-1	2.05E-3	6.18E-2	6.42E-4	-9.68E-2	1.99E-1
GWP-f	kg CO2 eq	2.03E-1	6.77E-3	1.91E-2	2.29E-1	2.05E-3	6.19E-2	6.42E-4	-9.62E-2	1.98E-1
GWP-b	kg CO2 eq	1.57E-3	-1.24E-6	4.06E-4	1.98E-3	1.25E-6	-6.73E-5	8.02E-7	-5.15E-4	1.40E-3
GWP-luluc	kg CO2 eq	1.67E-4	4.38E-6	1.74E-5	1.89E-4	7.27E-7	2.54E-5	1.73E-8	-4.96E-5	1.65E-4
ODP	kg CFC11 eq	8.78E-8	1.38E-9	1.59E-9	9.08E-8	4.73E-10	6.93E-9	2.41E-11	-4.35E-8	5.47E-8
AP	mol H+ eq	1.01E-3	1.96E-4	1.06E-4	1.31E-3	1.17E-5	1.20E-4	5.87E-7	-3.57E-4	1.08E-3
EP-fw	kg P eq	9.04E-6	3.14E-8	2.69E-7	9.34E-6	1.69E-8	8.54E-7	7.74E-10	-3.45E-6	6.76E-6
EP-m	kg N eq	1.69E-4	4.88E-5	1.99E-5	2.38E-4	4.18E-6	2.93E-5	3.58E-7	-6.25E-5	2.09E-4
EP-T	mol N eq	1.87E-3	5.43E-4	2.19E-4	2.63E-3	4.61E-5	3.23E-4	2.34E-6	-6.70E-4	2.33E-3
POCP	kg NMVOC eq	6.32E-4	1.41E-4	9.22E-5	8.65E-4	1.32E-5	9.65E-5	8.04E-7	-2.56E-4	7.20E-4
ADP-mm	kg Sb eq	1.02E-4	6.66E-8	5.03E-7	1.02E-4	5.31E-8	4.75E-7	5.91E-10	-1.76E-6	1.01E-4
ADP-f	MJ	4.63E+0	8.88E-2	2.11E-1	4.93E+0	3.15E-2	3.24E-1	1.76E-3	-2.18E+0	3.10E+0
WDP	m3 depriv.	2.66E-1	1.51E-4	6.17E-3	2.72E-1	9.67E-5	1.26E-2	1.28E-5	-1.25E-1	1.60E-1
PM	disease inc.	8.43E-9	2.61E-10	7.32E-10	9.42E-9	1.85E-10	1.49E-9	1.21E-11	-2.53E-9	8.58E-9
IR	kBq U-235 eq	1.07E-2	3.82E-4	4.92E-4	1.15E-2	1.38E-4	1.15E-3	8.06E-6	-3.86E-3	8.98E-3
ETP-fw	CTUe	4.87E+0	5.94E-2	5.80E-1	5.51E+0	2.56E-2	2.46E+0	2.71E-2	-1.46E+0	6.56E+0
HTP-c	CTUh	7.33E-10	3.73E-12	2.28E-11	7.60E-10	9.11E-13	3.70E-11	4.92E-14	-4.65E-11	7.51E-10
HTP-nc	CTUh	5.70E-9	5.18E-11	1.10E-9	6.86E-9	3.05E-11	8.75E-10	5.22E-12	-2.11E-12	7.77E-9
SQP	Pt	7.61E-1	2.18E-2	7.50E-2	8.58E-1	2.70E-2	2.05E-1	4.50E-3	-2.34E-1	8.60E-1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	3.16E-1	7.01E-4	1.24E+0	1.56E+0	4.52E-4	2.35E-2	6.44E-5	-8.82E-2	1.50E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	3.16E-1	7.01E-4	1.24E+0	1.56E+0	4.52E-4	2.35E-2	6.44E-5	-8.82E-2	1.50E+0
PENRE	MJ	4.96E+0	9.43E-2	2.24E-1	5.28E+0	3.35E-2	3.45E-1	1.87E-3	-2.35E+0	3.31E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	4.96E+0	9.43E-2	2.24E-1	5.28E+0	3.35E-2	3.45E-1	1.87E-3	-2.35E+0	3.31E+0
PET	MJ	5.27E+0	9.50E-2	1.47E+0	6.84E+0	3.39E-2	3.69E-1	1.93E-3	-2.44E+0	4.81E+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	3.17E-3	5.45E-6	1.83E-4	3.36E-3	3.57E-6	3.46E-4	2.15E-6	-1.32E-3	2.39E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.63E-5	1.03E-7	1.63E-6	1.80E-5	8.06E-8	5.32E-7	2.16E-9	-2.75E-6	1.59E-5
NHWD	kg	5.90E-2	1.02E-3	3.39E-4	6.04E-2	1.95E-3	1.22E-2	7.81E-3	-7.38E-3	7.50E-2
RWD	kg	9.62E-6	6.15E-7	4.32E-7	1.07E-5	2.14E-7	1.23E-6	1.14E-8	-3.48E-6	8.65E-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

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