

Environmental Profile

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

Ecochain v3.5.64



Product: 3067737 - SiTech+ Bend STB 67,5° 110
 Unit: 1 piece
 Manufacturer: Wavin - IT - SM Maddalena

LCA standard: EN15804+A2 (2019)
 Standard database: Worldwide - Ecoinvent v 3.6 Cut-Off
 Externally verified: Yes
 Issue date: 24-11-2022
 End of validity: 24-11-2027
 Verifier: Martijn van Hövell - SGS Search



Wavin SiTech+ is a waste water system made of mineral- reinforced polypropylene (PP), which offers increased durability, but more importantly is quiet and easy to install.

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 - IT - SM Maddalena (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 Climate Change [kg CO2 eq]; **GWP-f** = EF Climate change - Fossil [kg CO2 eq]; **GWP-b** = EF Climate Change - Biogenic [kg CO2 eq]; **GWP-luluc** = EF 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	8.56E-1	1.63E-2	6.32E-2	9.35E-1	1.14E-2	5.01E-1	5.46E-3	-5.31E-1	9.22E-1
GWP-f	kg CO2 eq	9.55E-1	1.63E-2	5.41E-2	1.03E+0	1.14E-2	3.78E-1	5.46E-3	-5.74E-1	8.46E-1
GWP-b	kg CO2 eq	-9.94E-2	9.89E-6	4.57E-3	-9.49E-2	6.90E-6	1.22E-1	4.79E-6	4.37E-2	7.13E-2
GWP-luluc	kg CO2 eq	5.61E-4	5.76E-6	4.56E-3	5.13E-3	4.02E-6	6.42E-5	9.20E-8	-4.67E-4	4.73E-3
ODP	kg CFC11 eq	3.39E-8	3.75E-9	5.42E-9	4.30E-8	2.62E-9	8.98E-9	1.37E-10	-2.64E-8	2.84E-8
AP	mol H+ eq	3.59E-3	9.28E-5	2.18E-4	3.90E-3	6.47E-5	3.75E-4	3.27E-6	-1.77E-3	2.57E-3
EP-fw	kg P eq	1.74E-5	1.34E-7	8.40E-7	1.84E-5	9.35E-8	1.87E-6	4.24E-9	-1.03E-5	1.00E-5
EP-m	kg N eq	6.45E-4	3.32E-5	3.68E-5	7.15E-4	2.32E-5	1.12E-4	2.33E-6	-3.35E-4	5.17E-4
EP-T	mol N eq	7.14E-3	3.66E-4	4.14E-4	7.92E-3	2.55E-4	1.23E-3	1.33E-5	-3.76E-3	5.66E-3
POCP	kg NMVOC eq	3.12E-3	1.05E-4	1.29E-4	3.35E-3	7.30E-5	3.85E-4	4.98E-6	-1.58E-3	2.24E-3
ADP-mm	kg Sb eq	3.21E-5	4.21E-7	1.32E-6	3.39E-5	2.94E-7	1.47E-6	3.28E-9	-4.62E-6	3.10E-5
ADP-f	MJ	3.28E+1	2.50E-1	7.12E-1	3.37E+1	1.74E-1	1.14E+0	1.00E-2	-1.73E+1	1.78E+1
WDP	m3 depriv.	6.46E-1	7.67E-4	2.52E-1	8.98E-1	5.35E-4	2.23E-2	4.58E-5	-3.52E-1	5.69E-1
PM	disease inc.	3.52E-8	1.47E-9	2.18E-9	3.89E-8	1.03E-9	6.05E-9	6.88E-11	-1.84E-8	2.76E-8
IR	kBq U-235 eq	2.25E-2	1.09E-3	6.64E-4	2.42E-2	7.62E-4	3.51E-3	4.66E-5	-1.13E-2	1.73E-2
ETP-fw	CTUe	1.13E+1	2.03E-1	1.12E+0	1.27E+1	1.42E-1	1.40E+0	8.94E-3	-5.90E+0	8.32E+0
HTP-c	CTUh	2.82E-10	7.22E-12	5.98E-11	3.49E-10	5.04E-12	1.53E-10	2.42E-13	-1.51E-10	3.57E-10
HTP-nc	CTUh	6.88E-9	2.42E-10	1.24E-9	8.37E-9	1.69E-10	1.93E-9	5.51E-12	-3.68E-9	6.80E-9
SQP	Pt	1.18E+1	2.14E-1	1.30E-1	1.21E+1	1.49E-1	8.99E-1	2.57E-2	-1.58E+1	-2.65E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	2.11E+0	3.59E-3	2.46E+0	4.58E+0	2.50E-3	5.54E-2	3.94E-4	-2.77E+0	1.87E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	2.11E+0	3.59E-3	2.46E+0	4.58E+0	2.50E-3	5.54E-2	3.94E-4	-2.77E+0	1.87E+0
PENRE	MJ	3.52E+1	2.65E-1	7.76E-1	3.62E+1	1.85E-1	1.22E+0	1.06E-2	-1.86E+1	1.90E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	3.52E+1	2.65E-1	7.76E-1	3.62E+1	1.85E-1	1.22E+0	1.06E-2	-1.86E+1	1.90E+1
PET	MJ	3.73E+1	2.69E-1	3.24E+0	4.08E+1	1.88E-1	1.27E+0	1.10E-2	-2.14E+1	2.09E+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	1.04E-2	2.83E-5	5.98E-3	1.64E-2	1.97E-5	7.12E-4	1.24E-5	-6.08E-3	1.10E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	5.87E-6	6.39E-7	6.91E-7	7.20E-6	4.46E-7	1.93E-6	1.20E-8	-5.29E-6	4.30E-6
NHWD	kg	4.93E-2	1.55E-2	6.74E-3	7.15E-2	1.08E-2	5.66E-2	4.41E-2	-2.03E-2	1.63E-1
RWD	kg	2.22E-5	1.70E-6	7.38E-7	2.46E-5	1.19E-6	4.48E-6	6.55E-8	-1.06E-5	1.98E-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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