

Environmental Profile

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

Ecochain v3.5.64



Product: 3067736 - SiTech+ Bend STB 67,5° 90
 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	5.16E-1	1.03E-2	3.72E-2	5.64E-1	6.74E-3	3.04E-1	3.25E-3	-3.15E-1	5.62E-1
GWP-f	kg CO2 eq	5.73E-1	1.03E-2	3.18E-2	6.15E-1	6.73E-3	2.33E-1	3.25E-3	-3.42E-1	5.16E-1
GWP-b	kg CO2 eq	-5.69E-2	6.23E-6	2.69E-3	-5.42E-2	4.09E-6	7.09E-2	2.86E-6	2.72E-2	4.39E-2
GWP-luluc	kg CO2 eq	3.46E-4	3.63E-6	2.69E-3	3.04E-3	2.38E-6	3.79E-5	5.49E-8	-2.84E-4	2.79E-3
ODP	kg CFC11 eq	2.26E-8	2.36E-9	3.20E-9	2.82E-8	1.55E-9	5.32E-9	8.18E-11	-1.61E-8	1.90E-8
AP	mol H+ eq	2.18E-3	5.85E-5	1.28E-4	2.36E-3	3.83E-5	2.23E-4	1.95E-6	-1.05E-3	1.57E-3
EP-fw	kg P eq	1.07E-5	8.44E-8	4.95E-7	1.13E-5	5.54E-8	1.10E-6	2.53E-9	-6.21E-6	6.21E-6
EP-m	kg N eq	3.91E-4	2.09E-5	2.17E-5	4.33E-4	1.37E-5	6.66E-5	1.42E-6	-1.99E-4	3.15E-4
EP-T	mol N eq	4.32E-3	2.30E-4	2.44E-4	4.80E-3	1.51E-4	7.33E-4	7.93E-6	-2.23E-3	3.45E-3
POCP	kg NMVOC eq	1.89E-3	6.59E-5	7.57E-5	2.03E-3	4.32E-5	2.29E-4	2.97E-6	-9.34E-4	1.37E-3
ADP-mm	kg Sb eq	2.30E-5	2.65E-7	7.75E-7	2.40E-5	1.74E-7	8.68E-7	1.96E-9	-2.86E-6	2.22E-5
ADP-f	MJ	1.96E+1	1.58E-1	4.19E-1	2.01E+1	1.03E-1	6.74E-1	5.97E-3	-1.02E+1	1.07E+1
WDP	m3 depriv.	3.87E-1	4.83E-4	1.48E-1	5.36E-1	3.17E-4	1.32E-2	2.74E-5	-2.09E-1	3.40E-1
PM	disease inc.	2.15E-8	9.26E-10	1.29E-9	2.37E-8	6.08E-10	3.58E-9	4.10E-11	-1.09E-8	1.70E-8
IR	kBq U-235 eq	1.42E-2	6.88E-4	3.91E-4	1.53E-2	4.52E-4	2.07E-3	2.78E-5	-6.75E-3	1.11E-2
ETP-fw	CTUe	7.08E+0	1.28E-1	6.61E-1	7.87E+0	8.39E-2	8.40E-1	5.44E-3	-3.58E+0	5.21E+0
HTP-c	CTUh	1.72E-10	4.55E-12	3.53E-11	2.11E-10	2.99E-12	9.05E-11	1.45E-13	-8.96E-11	2.15E-10
HTP-nc	CTUh	4.20E-9	1.52E-10	7.31E-10	5.08E-9	1.00E-10	1.15E-9	3.31E-12	-2.19E-9	4.14E-9
SQP	Pt	6.90E+0	1.35E-1	7.63E-2	7.11E+0	8.84E-2	5.30E-1	1.53E-2	-9.45E+0	-1.71E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.24E+0	2.26E-3	1.45E+0	2.70E+0	1.48E-3	3.27E-2	2.35E-4	-1.66E+0	1.08E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.24E+0	2.26E-3	1.45E+0	2.70E+0	1.48E-3	3.27E-2	2.35E-4	-1.66E+0	1.08E+0
PENRE	MJ	2.10E+1	1.67E-1	4.57E-1	2.16E+1	1.10E-1	7.18E-1	6.34E-3	-1.10E+1	1.14E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	2.10E+1	1.67E-1	4.57E-1	2.16E+1	1.10E-1	7.18E-1	6.34E-3	-1.10E+1	1.14E+1
PET	MJ	2.22E+1	1.69E-1	1.91E+0	2.43E+1	1.11E-1	7.51E-1	6.57E-3	-1.27E+1	1.25E+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	6.28E-3	1.78E-5	3.52E-3	9.82E-3	1.17E-5	4.32E-4	7.38E-6	-3.63E-3	6.64E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	3.64E-6	4.03E-7	4.07E-7	4.45E-6	2.64E-7	1.15E-6	7.17E-9	-3.20E-6	2.67E-6
NHWD	kg	3.02E-2	9.76E-3	3.97E-3	4.39E-2	6.40E-3	3.36E-2	2.63E-2	-1.20E-2	9.82E-2
RWD	kg	1.43E-5	1.07E-6	4.35E-7	1.59E-5	7.03E-7	2.65E-6	3.91E-8	-6.36E-6	1.29E-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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