Environmental Profile

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

Ecochain v3.5.64

Product:	3067843 - SiTech+ Trap coupler STS 32x1 1/4"
Unit:	1 piece
Manufacturer:	Wavin - IT - SM Maddalena

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.

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

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

Results

Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	7.39E-2	1.01E-3	8.25E-3	8.31E-2	4.74E-4	6.12E-2	2.23E-4	-3.85E-2	1.07E-1
GWP-f	kg CO2 eq	8.88E-2	1.01E-3	7.06E-3	9.69E-2	4.74E-4	4.30E-2	2.23E-4	-4.66E-2	9.40E-2
GWP-b	kg CO2 eq	-1.50E-2	6.13E-7	5.96E-4	-1.44E-2	2.88E-7	1.83E-2	1.95E-7	8.10E-3	1.20E-2
GWP-luluc	kg CO2 eq	9.89E-5	3.58E-7	5.96E-4	6.96E-4	1.68E-7	3.13E-6	3.74E-9	-6.92E-5	6.30E-4
ODP	kg CFC11 eq	3.85E-9	2.33E-10	7.09E-10	4.79E-9	1.09E-10	5.48E-10	5.60E-12	-3.48E-9	1.97E-9
AP	mol H+ eq	3.75E-4	5.75E-6	2.85E-5	4.09E-4	2.70E-6	2.37E-5	1.33E-7	-1.28E-4	3.08E-4
EP-fw	kg P eq	2.62E-6	8.31E-9	1.10E-7	2.74E-6	3.90E-9	9.39E-8	1.73E-10	-1.08E-6	1.75E-6
EP-m	kg N eq	7.34E-5	2.06E-6	4.81E-6	8.02E-5	9.66E-7	7.87E-6	8.73E-8	-2.79E-5	6.13E-5
EP-T	mol N eq	8.07E-4	2.27E-5	5.41E-5	8.83E-4	1.06E-5	8.68E-5	5.42E-7	-3.16E-4	6.66E-4
POCP	kg NMVOC eq	3.18E-4	6.49E-6	1.68E-5	3.41E-4	3.04E-6	2.62E-5	2.03E-7	-1.14E-4	2.57E-4
ADP-mm	kg Sb eq	1.31E-6	2.61E-8	1.72E-7	1.51E-6	1.23E-8	8.35E-8	1.34E-10	-2.44E-7	1.36E-6
ADP-f	MJ	2.51E+0	1.55E-2	9.30E-2	2.62E+0	7.27E-3	6.05E-2	4.09E-4	-1.12E+0	1.57E+0
WDP	m3 depriv.	4.96E-2	4.76E-5	3.29E-2	8.25E-2	2.23E-5	1.07E-3	1.87E-6	-2.57E-2	5.78E-2
PM	disease inc.	3.56E-9	9.12E-11	2.85E-10	3.94E-9	4.28E-11	3.56E-10	2.81E-12	-1.61E-9	2.73E-9
IR	kBq U-235 eq	2.60E-3	6.78E-5	8.67E-5	2.75E-3	3.18E-5	1.98E-4	1.90E-6	-1.03E-3	1.95E-3
ETP-fw	CTUe	1.85E+0	1.26E-2	1.47E-1	2.01E+0	5.91E-3	7.87E-2	3.42E-4	-7.89E-1	1.30E+0
HTP-c	CTUh	3.25E-11	4.48E-13	7.82E-12	4.08E-11	2.10E-13	1.12E-11	9.84E-15	-1.50E-11	3.71E-11
HTP-nc	CTUh	7.56E-10	1.50E-11	1.62E-10	9.33E-10	7.04E-12	1.23E-10	2.19E-13	-3.30E-10	7.33E-10
SQP	Pt	1.77E+0	1.33E-2	1.69E-2	1.80E+0	6.22E-3	4.66E-2	1.05E-3	-2.53E+0	-6.76E-1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	3.10E-1	2.22E-4	3.22E-1	6.32E-1	1.04E-4	2.74E-3	1.59E-5	-4.31E-1	2.04E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	3.10E-1	2.22E-4	3.22E-1	6.32E-1	1.04E-4	2.74E-3	1.59E-5	-4.31E-1	2.04E-1
PENRE	MJ	2.69E+0	1.65E-2	1.01E-1	2.81E+0	7.72E-3	6.44E-2	4.33E-4	-1.21E+0	1.67E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	2.69E+0	1.65E-2	1.01E-1	2.81E+0	7.72E-3	6.44E-2	4.33E-4	-1.21E+0	1.67E+0
PET	MJ	3.00E+0	1.67E-2	4.23E-1	3.44E+0	7.83E-3	6.71E-2	4.49E-4	-1.64E+0	1.87E+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	1.01E-3	1.75E-6	7.81E-4	1.79E-3	8.23E-7	3.68E-5	5.05E-7	-5.31E-4	1.30E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.11E-6	3.97E-8	9.03E-8	1.24E-6	1.86E-8	1.14E-7	4.91E-10	-6.98E-7	6.75E-7
NHWD	kg	7.13E-3	9.61E-4	8.80E-4	8.97E-3	4.51E-4	4.12E-3	1.80E-3	-1.89E-3	1.35E-2
RWD	kg	2.34E-6	1.05E-7	9.64E-8	2.54E-6	4.95E-8	2.60E-7	2.67E-9	-1.02E-6	1.84E-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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