Environmental Profile

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

Ecochain v3.5.64

Product:	3067845 - SiTech+ Trap coupler STS 50x1 1/2"
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	4.29E-1	3.33E-3	9.61E-3	4.42E-1	7.90E-4	3.18E-1	3.72E-4	-2.02E-1	5.60E-1
GWP-f	kg CO2 eq	4.63E-1	3.33E-3	8.22E-3	4.75E-1	7.90E-4	2.83E-1	3.72E-4	-2.13E-1	5.46E-1
GWP-b	kg CO2 eq	-3.45E-2	2.02E-6	6.94E-4	-3.38E-2	4.80E-7	3.47E-2	3.25E-7	1.18E-2	1.27E-2
GWP-luluc	kg CO2 eq	4.24E-4	1.18E-6	6.94E-4	1.12E-3	2.79E-7	6.81E-6	6.24E-9	-1.13E-4	1.01E-3
ODP	kg CFC11 eq	2.09E-8	7.67E-10	8.25E-10	2.25E-8	1.82E-10	1.44E-9	9.33E-12	-1.95E-8	4.62E-9
AP	mol H+ eq	2.02E-3	1.90E-5	3.32E-5	2.07E-3	4.50E-6	7.35E-5	2.22E-7	-3.25E-4	1.83E-3
EP-fw	kg P eq	1.52E-5	2.74E-8	1.28E-7	1.53E-5	6.50E-9	2.10E-7	2.88E-10	-2.00E-6	1.35E-5
EP-m	kg N eq	3.71E-4	6.79E-6	5.60E-6	3.84E-4	1.61E-6	2.74E-5	1.46E-7	-8.02E-5	3.33E-4
EP-T	mol N eq	4.12E-3	7.48E-5	6.29E-5	4.26E-3	1.77E-5	3.04E-4	9.03E-7	-8.96E-4	3.69E-3
POCP	kg NMVOC eq	1.71E-3	2.14E-5	1.95E-5	1.75E-3	5.07E-6	8.76E-5	3.39E-7	-3.24E-4	1.52E-3
ADP-mm	kg Sb eq	4.53E-6	8.61E-8	2.00E-7	4.82E-6	2.04E-8	1.91E-7	2.23E-10	-4.90E-7	4.54E-6
ADP-f	MJ	1.21E+1	5.11E-2	1.08E-1	1.22E+1	1.21E-2	1.42E-1	6.81E-4	-4.23E+0	8.14E+0
WDP	m3 depriv.	2.36E-1	1.57E-4	3.83E-2	2.75E-1	3.72E-5	2.47E-3	3.12E-6	-5.17E-2	2.25E-1
PM	disease inc.	1.67E-8	3.01E-10	3.32E-10	1.74E-8	7.13E-11	9.57E-10	4.68E-12	-3.08E-9	1.53E-8
IR	kBq U-235 eq	1.52E-2	2.23E-4	1.01E-4	1.55E-2	5.30E-5	4.78E-4	3.16E-6	-2.44E-3	1.36E-2
ETP-fw	CTUe	7.18E+0	4.15E-2	1.71E-1	7.40E+0	9.84E-3	2.10E-1	5.70E-4	-1.41E+0	6.21E+0
HTP-c	CTUh	1.44E-10	1.48E-12	9.10E-12	1.55E-10	3.50E-13	4.57E-11	1.64E-14	-3.60E-11	1.65E-10
HTP-nc	CTUh	3.79E-9	4.95E-11	1.89E-10	4.03E-9	1.17E-11	4.38E-10	3.65E-13	-6.89E-10	3.79E-9
SQP	Pt	4.38E+0	4.37E-2	1.97E-2	4.44E+0	1.04E-2	1.12E-1	1.75E-3	-4.33E+0	2.33E-1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	8.96E-1	7.33E-4	3.74E-1	1.27E+0	1.74E-4	6.10E-3	2.65E-5	-7.26E-1	5.51E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	8.96E-1	7.33E-4	3.74E-1	1.27E+0	1.74E-4	6.10E-3	2.65E-5	-7.26E-1	5.51E-1
PENRE	MJ	1.29E+1	5.43E-2	1.18E-1	1.31E+1	1.29E-2	1.52E-1	7.22E-4	-4.64E+0	8.62E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.29E+1	5.43E-2	1.18E-1	1.31E+1	1.29E-2	1.52E-1	7.22E-4	-4.64E+0	8.62E+0
PET	MJ	1.38E+1	5.50E-2	4.92E-1	1.44E+1	1.30E-2	1.58E-1	7.49E-4	-5.37E+0	9.17E+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	5.41E-3	5.78E-6	9.09E-4	6.32E-3	1.37E-6	1.11E-4	8.41E-7	-1.04E-3	5.39E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	6.62E-6	1.31E-7	1.05E-7	6.86E-6	3.10E-8	3.11E-7	8.18E-10	-3.82E-6	3.38E-6
NHWD	kg	3.46E-2	3.17E-3	1.02E-3	3.88E-2	7.51E-4	1.78E-2	3.00E-3	-4.23E-3	5.62E-2
RWD	kg	1.32E-5	3.48E-7	1.12E-7	1.37E-5	8.24E-8	6.39E-7	4.45E-9	-2.64E-6	1.18E-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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