

Environmental Profile

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

Ecochain v3.5.64



Product: 3067804 - SiTech+ Coupler STMM 160 S/S
 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	1.79E+0	2.64E-2	1.19E-1	1.94E+0	2.23E-2	1.11E+0	1.10E-2	-1.07E+0	2.02E+0
GWP-f	kg CO2 eq	1.98E+0	2.64E-2	1.02E-1	2.11E+0	2.22E-2	8.81E-1	1.10E-2	-1.15E+0	1.87E+0
GWP-b	kg CO2 eq	-1.88E-1	1.60E-5	8.61E-3	-1.79E-1	1.35E-5	2.30E-1	9.73E-6	8.76E-2	1.39E-1
GWP-luluc	kg CO2 eq	1.22E-3	9.34E-6	8.61E-3	9.84E-3	7.87E-6	1.23E-4	1.87E-7	-9.21E-4	9.05E-3
ODP	kg CFC11 eq	1.06E-7	6.08E-9	1.02E-8	1.22E-7	5.13E-9	1.74E-8	2.78E-10	-5.81E-8	8.68E-8
AP	mol H+ eq	7.78E-3	1.50E-4	4.11E-4	8.34E-3	1.27E-4	7.37E-4	6.64E-6	-3.44E-3	5.77E-3
EP-fw	kg P eq	3.90E-5	2.17E-7	1.58E-6	4.08E-5	1.83E-7	3.58E-6	8.62E-9	-2.02E-5	2.44E-5
EP-m	kg N eq	1.38E-3	5.38E-5	6.95E-5	1.50E-3	4.53E-5	2.22E-4	5.29E-6	-6.56E-4	1.12E-3
EP-T	mol N eq	1.53E-2	5.93E-4	7.81E-4	1.67E-2	5.00E-4	2.44E-3	2.70E-5	-7.35E-3	1.23E-2
POCP	kg NMVOC eq	6.69E-3	1.70E-4	2.42E-4	7.11E-3	1.43E-4	7.57E-4	1.01E-5	-3.06E-3	4.96E-3
ADP-mm	kg Sb eq	1.27E-4	6.83E-7	2.48E-6	1.30E-4	5.76E-7	2.81E-6	6.65E-9	-1.09E-5	1.22E-4
ADP-f	MJ	6.67E+1	4.05E-1	1.34E+0	6.84E+1	3.42E-1	2.19E+0	2.03E-2	-3.38E+1	3.72E+1
WDP	m3 depriv.	1.33E+0	1.24E-3	4.75E-1	1.80E+0	1.05E-3	4.42E-2	9.30E-5	-6.77E-1	1.17E+0
PM	disease inc.	7.87E-8	2.38E-9	4.12E-9	8.52E-8	2.01E-9	1.16E-8	1.39E-10	-3.56E-8	6.35E-8
IR	kBq U-235 eq	5.76E-2	1.77E-3	1.25E-3	6.07E-2	1.49E-3	6.73E-3	9.47E-5	-2.24E-2	4.66E-2
ETP-fw	CTUe	2.58E+1	3.29E-1	2.12E+0	2.82E+1	2.77E-1	2.92E+0	1.99E-2	-1.17E+1	1.98E+1
HTP-c	CTUh	6.24E-10	1.17E-11	1.13E-10	7.49E-10	9.87E-12	2.93E-10	4.94E-13	-2.94E-10	7.58E-10
HTP-nc	CTUh	1.52E-8	3.92E-10	2.34E-9	1.80E-8	3.31E-10	3.78E-9	1.16E-11	-7.15E-9	1.50E-8
SQP	Pt	2.32E+1	3.47E-1	2.44E-1	2.38E+1	2.92E-1	1.71E+0	5.21E-2	-3.06E+1	-4.83E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	4.18E+0	5.81E-3	4.64E+0	8.83E+0	4.90E-3	1.06E-1	8.07E-4	-5.36E+0	3.58E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	4.18E+0	5.81E-3	4.64E+0	8.83E+0	4.90E-3	1.06E-1	8.07E-4	-5.36E+0	3.58E+0
PENRE	MJ	7.15E+1	4.30E-1	1.46E+0	7.34E+1	3.63E-1	2.33E+0	2.15E-2	-3.65E+1	3.97E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	7.15E+1	4.30E-1	1.46E+0	7.34E+1	3.63E-1	2.33E+0	2.15E-2	-3.65E+1	3.97E+1
PET	MJ	7.57E+1	4.36E-1	6.11E+0	8.22E+1	3.67E-1	2.44E+0	2.23E-2	-4.18E+1	4.32E+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	2.24E-2	4.59E-5	1.13E-2	3.37E-2	3.86E-5	1.56E-3	2.51E-5	-1.18E-2	2.36E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.40E-5	1.04E-6	1.30E-6	1.64E-5	8.73E-7	3.81E-6	2.44E-8	-1.14E-5	9.68E-6
NHWD	kg	1.10E-1	2.51E-2	1.27E-2	1.48E-1	2.12E-2	1.11E-1	8.94E-2	-3.94E-2	3.31E-1
RWD	kg	6.23E-5	2.76E-6	1.39E-6	6.64E-5	2.32E-6	8.59E-6	1.33E-7	-2.13E-5	5.61E-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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