

Environmental Profile

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

Ecochain v3.5.64



Product: 3067799 - SiTech+ Coupler STMM 50 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	1.51E-1	4.29E-3	8.40E-3	1.63E-1	1.66E-3	1.02E-1	8.55E-4	-8.01E-2	1.88E-1
GWP-f	kg CO2 eq	1.65E-1	4.29E-3	7.19E-3	1.77E-1	1.66E-3	8.17E-2	8.55E-4	-9.26E-2	1.68E-1
GWP-b	kg CO2 eq	-1.47E-2	2.60E-6	6.07E-4	-1.41E-2	1.01E-6	2.03E-2	7.67E-7	1.26E-2	1.88E-2
GWP-luluc	kg CO2 eq	1.38E-4	1.52E-6	6.07E-4	7.47E-4	5.89E-7	8.96E-6	1.48E-8	-1.11E-4	6.46E-4
ODP	kg CFC11 eq	1.29E-8	9.88E-10	7.22E-10	1.47E-8	3.83E-10	1.37E-9	2.18E-11	-5.49E-9	1.09E-8
AP	mol H+ eq	6.94E-4	2.44E-5	2.90E-5	7.48E-4	9.47E-6	5.82E-5	5.23E-7	-2.82E-4	5.34E-4
EP-fw	kg P eq	3.82E-6	3.53E-8	1.12E-7	3.97E-6	1.37E-8	2.65E-7	6.80E-10	-2.01E-6	2.23E-6
EP-m	kg N eq	1.26E-4	8.74E-6	4.90E-6	1.40E-4	3.39E-6	1.79E-5	4.77E-7	-5.56E-5	1.06E-4
EP-T	mol N eq	1.39E-3	9.63E-5	5.51E-5	1.54E-3	3.74E-5	1.97E-4	2.12E-6	-6.25E-4	1.15E-3
POCP	kg NMVOC eq	5.86E-4	2.75E-5	1.71E-5	6.31E-4	1.07E-5	6.03E-5	7.90E-7	-2.45E-4	4.57E-4
ADP-mm	kg Sb eq	1.65E-5	1.11E-7	1.75E-7	1.68E-5	4.30E-8	2.16E-7	5.22E-10	-1.07E-6	1.60E-5
ADP-f	MJ	5.34E+0	6.58E-2	9.46E-2	5.50E+0	2.55E-2	1.64E-1	1.59E-3	-2.58E+0	3.11E+0
WDP	m3 depriv.	1.08E-1	2.02E-4	3.35E-2	1.42E-1	7.83E-5	3.41E-3	7.30E-6	-5.75E-2	8.78E-2
PM	disease inc.	7.44E-9	3.87E-10	2.90E-10	8.11E-9	1.50E-10	8.85E-10	1.09E-11	-3.18E-9	5.97E-9
IR	kBq U-235 eq	6.07E-3	2.88E-4	8.83E-5	6.44E-3	1.12E-4	5.11E-4	7.46E-6	-2.07E-3	5.00E-3
ETP-fw	CTUe	3.04E+0	5.34E-2	1.49E-1	3.25E+0	2.07E-2	2.50E-1	1.74E-3	-1.33E+0	2.18E+0
HTP-c	CTUh	5.80E-11	1.90E-12	7.96E-12	6.79E-11	7.38E-13	2.18E-11	3.91E-14	-2.57E-11	6.48E-11
HTP-nc	CTUh	1.42E-9	6.37E-11	1.65E-10	1.65E-9	2.47E-11	2.92E-10	9.56E-13	-6.47E-10	1.32E-9
SQP	Pt	2.11E+0	5.63E-2	1.72E-2	2.18E+0	2.18E-2	1.26E-1	4.08E-3	-3.40E+0	-1.07E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	3.85E-1	9.44E-4	3.27E-1	7.13E-1	3.66E-4	7.85E-3	6.44E-5	-6.00E-1	1.22E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	3.85E-1	9.44E-4	3.27E-1	7.13E-1	3.66E-4	7.85E-3	6.44E-5	-6.00E-1	1.22E-1
PENRE	MJ	5.73E+0	6.99E-2	1.03E-1	5.90E+0	2.71E-2	1.75E-1	1.69E-3	-2.79E+0	3.32E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	5.73E+0	6.99E-2	1.03E-1	5.90E+0	2.71E-2	1.75E-1	1.69E-3	-2.79E+0	3.32E+0
PET	MJ	6.11E+0	7.08E-2	4.31E-1	6.61E+0	2.75E-2	1.83E-1	1.75E-3	-3.39E+0	3.44E+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	1.98E-3	7.45E-6	7.95E-4	2.78E-3	2.89E-6	1.38E-4	1.97E-6	-1.09E-3	1.84E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.44E-6	1.68E-7	9.20E-8	1.70E-6	6.53E-8	3.02E-7	1.91E-9	-1.05E-6	1.03E-6
NHWD	kg	1.08E-2	4.08E-3	8.96E-4	1.58E-2	1.58E-3	8.60E-3	7.01E-3	-3.42E-3	2.96E-2
RWD	kg	7.00E-6	4.48E-7	9.82E-8	7.54E-6	1.74E-7	6.57E-7	1.04E-8	-2.02E-6	6.36E-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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