

Environmental Profile

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

Ecochain v3.5.64



Product: 3067802 - SiTech+ Coupler STMM 110 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					Use stage							End-of-Life stage				
A1 Raw material supply A2 Transport A3 Manufacturing					B1 Use B2 Maintenance B3 Repair B4 Replacement B5 Refurbishment B6 Operational energy use B7 Operational water use							C1 De-construction demolition C2 Transport C3 Waste processing C4 Disposal				
Construction process stage					Benefits and loads beyond the system boundaries											
A4 Transport gate to site A5 Assembly / Construction installation process					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	8.13E-1	1.75E-2	4.74E-2	8.77E-1	1.01E-2	4.76E-1	4.97E-3	-4.80E-1	8.88E-1
GWP-f	kg CO2 eq	8.84E-1	1.74E-2	4.06E-2	9.42E-1	1.01E-2	3.85E-1	4.97E-3	-5.19E-1	8.24E-1
GWP-b	kg CO2 eq	-7.16E-2	1.06E-5	3.43E-3	-6.81E-2	6.15E-6	9.07E-2	4.39E-6	3.85E-2	6.11E-2
GWP-luluc	kg CO2 eq	5.28E-4	6.18E-6	3.43E-3	3.96E-3	3.58E-6	5.60E-5	8.44E-8	-4.03E-4	3.62E-3
ODP	kg CFC11 eq	4.34E-8	4.02E-9	4.07E-9	5.15E-8	2.33E-9	7.91E-9	1.25E-10	-2.54E-8	3.64E-8
AP	mol H+ eq	3.43E-3	9.94E-5	1.64E-4	3.69E-3	5.76E-5	3.34E-4	3.00E-6	-1.55E-3	2.54E-3
EP-fw	kg P eq	1.70E-5	1.44E-7	6.30E-7	1.78E-5	8.33E-8	1.64E-6	3.89E-9	-8.99E-6	1.05E-5
EP-m	kg N eq	6.08E-4	3.56E-5	2.76E-5	6.71E-4	2.06E-5	1.00E-4	2.33E-6	-2.94E-4	5.00E-4
EP-T	mol N eq	6.73E-3	3.92E-4	3.11E-4	7.44E-3	2.27E-4	1.10E-3	1.22E-5	-3.29E-3	5.49E-3
POCP	kg NMVOC eq	2.96E-3	1.12E-4	9.65E-5	3.17E-3	6.50E-5	3.42E-4	4.55E-6	-1.38E-3	2.20E-3
ADP-mm	kg Sb eq	5.02E-5	4.51E-7	9.88E-7	5.17E-5	2.62E-7	1.28E-6	3.00E-9	-4.73E-6	4.85E-5
ADP-f	MJ	3.00E+1	2.68E-1	5.34E-1	3.08E+1	1.55E-1	9.99E-1	9.16E-3	-1.53E+1	1.66E+1
WDP	m3 depriv.	5.96E-1	8.22E-4	1.89E-1	7.86E-1	4.77E-4	2.00E-2	4.19E-5	-3.07E-1	4.99E-1
PM	disease inc.	3.43E-8	1.58E-9	1.64E-9	3.75E-8	9.14E-10	5.29E-9	6.29E-11	-1.58E-8	2.79E-8
IR	kBq U-235 eq	2.46E-2	1.17E-3	4.98E-4	2.62E-2	6.79E-4	3.07E-3	4.27E-5	-9.98E-3	2.00E-2
ETP-fw	CTUe	1.11E+1	2.17E-1	8.43E-1	1.22E+1	1.26E-1	1.31E+0	8.78E-3	-5.16E+0	8.46E+0
HTP-c	CTUh	2.67E-10	7.74E-12	4.49E-11	3.19E-10	4.49E-12	1.34E-10	2.23E-13	-1.28E-10	3.30E-10
HTP-nc	CTUh	6.64E-9	2.59E-10	9.32E-10	7.83E-9	1.50E-10	1.72E-9	5.19E-12	-3.19E-9	6.52E-9
SQP	Pt	9.24E+0	2.29E-1	9.73E-2	9.56E+0	1.33E-1	7.83E-1	2.35E-2	-1.27E+1	-2.25E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.71E+0	3.84E-3	1.85E+0	3.56E+0	2.23E-3	4.85E-2	3.63E-4	-2.25E+0	1.36E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.71E+0	3.84E-3	1.85E+0	3.56E+0	2.23E-3	4.85E-2	3.63E-4	-2.25E+0	1.36E+0
PENRE	MJ	3.22E+1	2.84E-1	5.83E-1	3.30E+1	1.65E-1	1.06E+0	9.71E-3	-1.65E+1	1.77E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	3.22E+1	2.84E-1	5.83E-1	3.30E+1	1.65E-1	1.06E+0	9.71E-3	-1.65E+1	1.77E+1
PET	MJ	3.39E+1	2.88E-1	2.43E+0	3.66E+1	1.67E-1	1.11E+0	1.01E-2	-1.88E+1	1.91E+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	9.92E-3	3.03E-5	4.49E-3	1.44E-2	1.76E-5	6.92E-4	1.13E-5	-5.32E-3	9.84E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	5.90E-6	6.85E-7	5.19E-7	7.11E-6	3.97E-7	1.72E-6	1.10E-8	-4.98E-6	4.26E-6
NHWD	kg	4.70E-2	1.66E-2	5.06E-3	6.87E-2	9.63E-3	5.04E-2	4.03E-2	-1.73E-2	1.52E-1
RWD	kg	2.61E-5	1.82E-6	5.54E-7	2.85E-5	1.06E-6	3.91E-6	5.99E-8	-9.46E-6	2.40E-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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