

Environmental Profile

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

Ecochain v3.5.64



Product: 3067795 - SiTech+ Coupler STU 125
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					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	9.74E-1	1.43E-2	6.45E-2	1.05E+0	1.21E-2	6.07E-1	5.98E-3	-5.81E-1	1.10E+0
GWP-f	kg CO2 eq	1.07E+0	1.42E-2	5.52E-2	1.14E+0	1.21E-2	4.84E-1	5.98E-3	-6.24E-1	1.02E+0
GWP-b	kg CO2 eq	-1.01E-1	8.65E-6	4.66E-3	-9.65E-2	7.33E-6	1.22E-1	5.30E-6	4.37E-2	6.97E-2
GWP-luluc	kg CO2 eq	6.48E-4	5.04E-6	4.66E-3	5.31E-3	4.27E-6	6.63E-5	1.02E-7	-4.72E-4	4.91E-3
ODP	kg CFC11 eq	5.87E-8	3.28E-9	5.54E-9	6.76E-8	2.78E-9	9.39E-9	1.51E-10	-3.15E-8	4.84E-8
AP	mol H+ eq	4.24E-3	8.11E-5	2.23E-4	4.54E-3	6.88E-5	3.98E-4	3.62E-6	-1.85E-3	3.17E-3
EP-fw	kg P eq	2.11E-5	1.17E-7	8.58E-7	2.21E-5	9.94E-8	1.94E-6	4.69E-9	-1.06E-5	1.36E-5
EP-m	kg N eq	7.47E-4	2.90E-5	3.76E-5	8.13E-4	2.46E-5	1.20E-4	2.91E-6	-3.52E-4	6.09E-4
EP-T	mol N eq	8.30E-3	3.20E-4	4.23E-4	9.05E-3	2.71E-4	1.32E-3	1.47E-5	-3.94E-3	6.71E-3
POCP	kg NMVOC eq	3.65E-3	9.14E-5	1.31E-4	3.87E-3	7.75E-5	4.08E-4	5.49E-6	-1.65E-3	2.71E-3
ADP-mm	kg Sb eq	7.17E-5	3.68E-7	1.34E-6	7.34E-5	3.12E-7	1.52E-6	3.62E-9	-5.99E-6	6.92E-5
ADP-f	MJ	3.63E+1	2.19E-1	7.27E-1	3.72E+1	1.85E-1	1.18E+0	1.10E-2	-1.83E+1	2.03E+1
WDP	m3 depriv.	7.22E-1	6.71E-4	2.57E-1	9.80E-1	5.69E-4	2.40E-2	5.06E-5	-3.61E-1	6.44E-1
PM	disease inc.	4.29E-8	1.29E-9	2.23E-9	4.64E-8	1.09E-9	6.26E-9	7.59E-11	-1.89E-8	3.49E-8
IR	kBq U-235 eq	3.17E-2	9.55E-4	6.78E-4	3.34E-2	8.10E-4	3.63E-3	5.15E-5	-1.19E-2	2.60E-2
ETP-fw	CTUe	1.37E+1	1.78E-1	1.15E+0	1.50E+1	1.51E-1	1.59E+0	1.09E-2	-6.05E+0	1.07E+1
HTP-c	CTUh	3.40E-10	6.32E-12	6.11E-11	4.08E-10	5.36E-12	1.58E-10	2.69E-13	-1.57E-10	4.14E-10
HTP-nc	CTUh	8.30E-9	2.12E-10	1.27E-9	9.78E-9	1.79E-10	2.05E-9	6.33E-12	-3.80E-9	8.21E-9
SQP	Pt	1.24E+1	1.87E-1	1.32E-1	1.27E+1	1.59E-1	9.26E-1	2.83E-2	-1.59E+1	-2.05E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	2.23E+0	3.14E-3	2.51E+0	4.75E+0	2.66E-3	5.74E-2	4.40E-4	-2.78E+0	2.04E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	2.23E+0	3.14E-3	2.51E+0	4.75E+0	2.66E-3	5.74E-2	4.40E-4	-2.78E+0	2.04E+0
PENRE	MJ	3.89E+1	2.32E-1	7.93E-1	3.99E+1	1.97E-1	1.26E+0	1.17E-2	-1.97E+1	2.16E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	3.89E+1	2.32E-1	7.93E-1	3.99E+1	1.97E-1	1.26E+0	1.17E-2	-1.97E+1	2.16E+1
PET	MJ	4.11E+1	2.35E-1	3.31E+0	4.47E+1	1.99E-1	1.32E+0	1.22E-2	-2.25E+1	2.37E+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	1.22E-2	2.47E-5	6.11E-3	1.83E-2	2.10E-5	8.55E-4	1.37E-5	-6.25E-3	1.30E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	7.65E-6	5.59E-7	7.06E-7	8.92E-6	4.74E-7	2.06E-6	1.33E-8	-6.18E-6	5.29E-6
NHWD	kg	5.98E-2	1.35E-2	6.88E-3	8.02E-2	1.15E-2	6.02E-2	4.87E-2	-2.10E-2	1.80E-1
RWD	kg	3.45E-5	1.49E-6	7.54E-7	3.67E-5	1.26E-6	4.63E-6	7.23E-8	-1.14E-5	3.13E-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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