

Environmental Profile

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

Ecochain v3.5.64



Product: 3067794 - SiTech+ Coupler STU 110
 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	7.93E-1	1.72E-2	4.67E-2	8.56E-1	9.87E-3	4.68E-1	4.84E-3	-4.68E-1	8.71E-1
GWP-f	kg CO2 eq	8.64E-1	1.72E-2	3.99E-2	9.21E-1	9.86E-3	3.78E-1	4.84E-3	-5.06E-1	8.07E-1
GWP-b	kg CO2 eq	-7.16E-2	1.04E-5	3.37E-3	-6.83E-2	5.99E-6	9.07E-2	4.28E-6	3.85E-2	6.10E-2
GWP-luluc	kg CO2 eq	5.23E-4	6.09E-6	3.37E-3	3.90E-3	3.49E-6	5.46E-5	8.23E-8	-4.01E-4	3.56E-3
ODP	kg CFC11 eq	4.30E-8	3.96E-9	4.01E-9	5.10E-8	2.27E-9	7.72E-9	1.22E-10	-2.50E-8	3.62E-8
AP	mol H+ eq	3.36E-3	9.80E-5	1.61E-4	3.62E-3	5.62E-5	3.26E-4	2.92E-6	-1.52E-3	2.49E-3
EP-fw	kg P eq	1.67E-5	1.42E-7	6.20E-7	1.75E-5	8.11E-8	1.59E-6	3.79E-9	-8.86E-6	1.03E-5
EP-m	kg N eq	5.96E-4	3.51E-5	2.72E-5	6.58E-4	2.01E-5	9.78E-5	2.28E-6	-2.88E-4	4.91E-4
EP-T	mol N eq	6.60E-3	3.86E-4	3.06E-4	7.30E-3	2.21E-4	1.08E-3	1.19E-5	-3.22E-3	5.39E-3
POCP	kg NMVOC eq	2.90E-3	1.10E-4	9.50E-5	3.10E-3	6.33E-5	3.34E-4	4.44E-6	-1.34E-3	2.16E-3
ADP-mm	kg Sb eq	5.00E-5	4.45E-7	9.72E-7	5.14E-5	2.55E-7	1.25E-6	2.93E-9	-4.65E-6	4.83E-5
ADP-f	MJ	2.93E+1	2.64E-1	5.26E-1	3.01E+1	1.51E-1	9.73E-1	8.93E-3	-1.50E+1	1.62E+1
WDP	m3 depriv.	5.82E-1	8.10E-4	1.86E-1	7.69E-1	4.64E-4	1.95E-2	4.09E-5	-3.00E-1	4.88E-1
PM	disease inc.	3.37E-8	1.55E-9	1.61E-9	3.68E-8	8.90E-10	5.16E-9	6.13E-11	-1.56E-8	2.74E-8
IR	kBq U-235 eq	2.42E-2	1.15E-3	4.90E-4	2.58E-2	6.61E-4	2.99E-3	4.16E-5	-9.80E-3	1.97E-2
ETP-fw	CTUe	1.10E+1	2.14E-1	8.29E-1	1.21E+1	1.23E-1	1.28E+0	8.59E-3	-5.11E+0	8.36E+0
HTP-c	CTUh	2.63E-10	7.63E-12	4.42E-11	3.14E-10	4.37E-12	1.30E-10	2.17E-13	-1.26E-10	3.23E-10
HTP-nc	CTUh	6.52E-9	2.56E-10	9.17E-10	7.70E-9	1.46E-10	1.67E-9	5.07E-12	-3.13E-9	6.39E-9
SQP	Pt	9.21E+0	2.26E-1	9.57E-2	9.54E+0	1.29E-1	7.63E-1	2.29E-2	-1.27E+1	-2.29E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.70E+0	3.79E-3	1.82E+0	3.52E+0	2.17E-3	4.72E-2	3.54E-4	-2.25E+0	1.32E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.70E+0	3.79E-3	1.82E+0	3.52E+0	2.17E-3	4.72E-2	3.54E-4	-2.25E+0	1.32E+0
PENRE	MJ	3.14E+1	2.80E-1	5.73E-1	3.23E+1	1.61E-1	1.04E+0	9.47E-3	-1.61E+1	1.73E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	3.14E+1	2.80E-1	5.73E-1	3.23E+1	1.61E-1	1.04E+0	9.47E-3	-1.61E+1	1.73E+1
PET	MJ	3.31E+1	2.84E-1	2.39E+0	3.58E+1	1.63E-1	1.08E+0	9.83E-3	-1.84E+1	1.87E+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	9.71E-3	2.99E-5	4.42E-3	1.42E-2	1.71E-5	6.77E-4	1.10E-5	-5.22E-3	9.65E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	5.83E-6	6.75E-7	5.11E-7	7.02E-6	3.87E-7	1.68E-6	1.07E-8	-4.89E-6	4.21E-6
NHWD	kg	4.64E-2	1.64E-2	4.98E-3	6.77E-2	9.38E-3	4.92E-2	3.93E-2	-1.70E-2	1.49E-1
RWD	kg	2.58E-5	1.80E-6	5.45E-7	2.81E-5	1.03E-6	3.82E-6	5.84E-8	-9.30E-6	2.37E-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



Ecochain Technologies BV
H.J.E. Wenckebachweg 123, 1096 AM Amsterdam, The Netherlands
<https://www.ecochain.com>
+31 20 3035 777