

Environmental Profile

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

Ecochain v3.5.64



Product: 3067791 - SiTech+ Coupler STU 50
 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	1.53E-1	4.32E-3	8.40E-3	1.65E-1	1.69E-3	1.03E-1	8.68E-4	-8.13E-2	1.89E-1
GWP-f	kg CO2 eq	1.67E-1	4.31E-3	7.19E-3	1.79E-1	1.69E-3	8.24E-2	8.68E-4	-9.38E-2	1.70E-1
GWP-b	kg CO2 eq	-1.47E-2	2.62E-6	6.07E-4	-1.41E-2	1.03E-6	2.03E-2	7.78E-7	1.26E-2	1.88E-2
GWP-luluc	kg CO2 eq	1.39E-4	1.53E-6	6.07E-4	7.47E-4	5.98E-7	9.11E-6	1.50E-8	-1.11E-4	6.46E-4
ODP	kg CFC11 eq	1.30E-8	9.94E-10	7.22E-10	1.47E-8	3.89E-10	1.39E-9	2.21E-11	-5.53E-9	1.10E-8
AP	mol H+ eq	7.01E-4	2.46E-5	2.90E-5	7.55E-4	9.62E-6	5.90E-5	5.30E-7	-2.85E-4	5.39E-4
EP-fw	kg P eq	3.85E-6	3.55E-8	1.12E-7	4.00E-6	1.39E-8	2.70E-7	6.90E-10	-2.03E-6	2.25E-6
EP-m	kg N eq	1.27E-4	8.79E-6	4.90E-6	1.41E-4	3.44E-6	1.82E-5	4.82E-7	-5.62E-5	1.07E-4
EP-T	mol N eq	1.40E-3	9.69E-5	5.51E-5	1.55E-3	3.79E-5	2.00E-4	2.15E-6	-6.32E-4	1.16E-3
POCP	kg NMVOC eq	5.92E-4	2.77E-5	1.71E-5	6.37E-4	1.08E-5	6.11E-5	8.01E-7	-2.48E-4	4.61E-4
ADP-mm	kg Sb eq	1.66E-5	1.12E-7	1.75E-7	1.68E-5	4.37E-8	2.19E-7	5.30E-10	-1.07E-6	1.60E-5
ADP-f	MJ	5.41E+0	6.62E-2	9.46E-2	5.57E+0	2.59E-2	1.67E-1	1.62E-3	-2.62E+0	3.15E+0
WDP	m3 depriv.	1.10E-1	2.03E-4	3.35E-2	1.43E-1	7.96E-5	3.46E-3	7.41E-6	-5.82E-2	8.86E-2
PM	disease inc.	7.50E-9	3.89E-10	2.90E-10	8.18E-9	1.52E-10	8.98E-10	1.11E-11	-3.21E-9	6.02E-9
IR	kBq U-235 eq	6.10E-3	2.89E-4	8.83E-5	6.48E-3	1.13E-4	5.19E-4	7.56E-6	-2.09E-3	5.03E-3
ETP-fw	CTUe	3.05E+0	5.37E-2	1.49E-1	3.26E+0	2.11E-2	2.53E-1	1.76E-3	-1.34E+0	2.19E+0
HTP-c	CTUh	5.84E-11	1.91E-12	7.96E-12	6.83E-11	7.49E-13	2.22E-11	3.97E-14	-2.59E-11	6.54E-11
HTP-nc	CTUh	1.43E-9	6.41E-11	1.65E-10	1.66E-9	2.51E-11	2.96E-10	9.68E-13	-6.53E-10	1.33E-9
SQP	Pt	2.11E+0	5.66E-2	1.72E-2	2.18E+0	2.22E-2	1.28E-1	4.14E-3	-3.40E+0	-1.06E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	3.86E-1	9.50E-4	3.27E-1	7.14E-1	3.72E-4	7.98E-3	6.53E-5	-6.01E-1	1.22E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	3.86E-1	9.50E-4	3.27E-1	7.14E-1	3.72E-4	7.98E-3	6.53E-5	-6.01E-1	1.22E-1
PENRE	MJ	5.80E+0	7.03E-2	1.03E-1	5.98E+0	2.75E-2	1.78E-1	1.71E-3	-2.83E+0	3.36E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	5.80E+0	7.03E-2	1.03E-1	5.98E+0	2.75E-2	1.78E-1	1.71E-3	-2.83E+0	3.36E+0
PET	MJ	6.19E+0	7.12E-2	4.31E-1	6.69E+0	2.79E-2	1.86E-1	1.78E-3	-3.43E+0	3.48E+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	2.00E-3	7.49E-6	7.95E-4	2.81E-3	2.93E-6	1.39E-4	2.00E-6	-1.10E-3	1.85E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.45E-6	1.69E-7	9.20E-8	1.71E-6	6.63E-8	3.06E-7	1.94E-9	-1.05E-6	1.03E-6
NHWD	kg	1.09E-2	4.10E-3	8.96E-4	1.59E-2	1.61E-3	8.72E-3	7.11E-3	-3.45E-3	2.99E-2
RWD	kg	7.03E-6	4.50E-7	9.82E-8	7.57E-6	1.76E-7	6.67E-7	1.06E-8	-2.03E-6	6.39E-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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