

Environmental Profile

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

Ecochain v3.5.64



Product: 3067792 - SiTech+ Coupler STU 75
 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	4.26E-1	6.18E-3	2.87E-2	4.61E-1	5.33E-3	2.57E-1	2.61E-3	-2.52E-1	4.74E-1
GWP-f	kg CO2 eq	4.69E-1	6.18E-3	2.45E-2	5.00E-1	5.32E-3	2.03E-1	2.61E-3	-2.75E-1	4.35E-1
GWP-b	kg CO2 eq	-4.30E-2	3.75E-6	2.07E-3	-4.10E-2	3.23E-6	5.45E-2	2.31E-6	2.32E-2	3.68E-2
GWP-luluc	kg CO2 eq	2.98E-4	2.19E-6	2.07E-3	2.37E-3	1.88E-6	2.96E-5	4.44E-8	-2.36E-4	2.17E-3
ODP	kg CFC11 eq	2.33E-8	1.42E-9	2.46E-9	2.72E-8	1.23E-9	4.21E-9	6.60E-11	-1.37E-8	1.90E-8
AP	mol H+ eq	1.83E-3	3.52E-5	9.89E-5	1.96E-3	3.03E-5	1.77E-4	1.58E-6	-8.34E-4	1.34E-3
EP-fw	kg P eq	9.18E-6	5.08E-8	3.81E-7	9.62E-6	4.38E-8	8.64E-7	2.04E-9	-5.02E-6	5.50E-6
EP-m	kg N eq	3.27E-4	1.26E-5	1.67E-5	3.56E-4	1.09E-5	5.33E-5	1.22E-6	-1.59E-4	2.62E-4
EP-T	mol N eq	3.62E-3	1.39E-4	1.88E-4	3.94E-3	1.20E-4	5.86E-4	6.40E-6	-1.78E-3	2.87E-3
POCP	kg NMVOC eq	1.57E-3	3.97E-5	5.83E-5	1.67E-3	3.42E-5	1.82E-4	2.39E-6	-7.39E-4	1.15E-3
ADP-mm	kg Sb eq	2.67E-5	1.60E-7	5.97E-7	2.75E-5	1.38E-7	6.82E-7	1.58E-9	-2.52E-6	2.58E-5
ADP-f	MJ	1.58E+1	9.48E-2	3.23E-1	1.63E+1	8.17E-2	5.29E-1	4.82E-3	-8.11E+0	8.76E+0
WDP	m3 depriv.	3.15E-1	2.91E-4	1.14E-1	4.29E-1	2.51E-4	1.06E-2	2.21E-5	-1.66E-1	2.74E-1
PM	disease inc.	1.84E-8	5.58E-10	9.91E-10	2.00E-8	4.81E-10	2.81E-9	3.31E-11	-8.72E-9	1.46E-8
IR	kBq U-235 eq	1.31E-2	4.15E-4	3.01E-4	1.38E-2	3.57E-4	1.63E-3	2.25E-5	-5.47E-3	1.04E-2
ETP-fw	CTUe	6.25E+0	7.70E-2	5.09E-1	6.84E+0	6.64E-2	6.93E-1	4.62E-3	-2.96E+0	4.64E+0
HTP-c	CTUh	1.45E-10	2.74E-12	2.72E-11	1.75E-10	2.36E-12	7.08E-11	1.17E-13	-7.11E-11	1.78E-10
HTP-nc	CTUh	3.57E-9	9.18E-11	5.63E-10	4.23E-9	7.91E-11	9.09E-10	2.73E-12	-1.75E-9	3.46E-9
SQP	Pt	5.45E+0	8.11E-2	5.88E-2	5.59E+0	6.99E-2	4.14E-1	1.24E-2	-7.63E+0	-1.54E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	9.91E-1	1.36E-3	1.12E+0	2.11E+0	1.17E-3	2.56E-2	1.91E-4	-1.34E+0	7.95E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	9.91E-1	1.36E-3	1.12E+0	2.11E+0	1.17E-3	2.56E-2	1.91E-4	-1.34E+0	7.95E-1
PENRE	MJ	1.70E+1	1.01E-1	3.52E-1	1.74E+1	8.68E-2	5.63E-1	5.11E-3	-8.74E+0	9.35E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.70E+1	1.01E-1	3.52E-1	1.74E+1	8.68E-2	5.63E-1	5.11E-3	-8.74E+0	9.35E+0
PET	MJ	1.80E+1	1.02E-1	1.47E+0	1.95E+1	8.79E-2	5.89E-1	5.30E-3	-1.01E+1	1.01E+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	5.27E-3	1.07E-5	2.71E-3	7.99E-3	9.25E-6	3.65E-4	5.95E-6	-2.92E-3	5.46E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	3.24E-6	2.43E-7	3.14E-7	3.80E-6	2.09E-7	9.16E-7	5.78E-9	-2.68E-6	2.24E-6
NHWD	kg	2.59E-2	5.88E-3	3.06E-3	3.48E-2	5.07E-3	2.67E-2	2.12E-2	-9.55E-3	7.82E-2
RWD	kg	1.39E-5	6.45E-7	3.35E-7	1.49E-5	5.56E-7	2.08E-6	3.15E-8	-5.20E-6	1.24E-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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