

Environmental Profile

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

Ecochain v3.5.64



Product: 3067766 - SiTech+ Branch STEA 67,5° 50X50
 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	2.44E-1	5.85E-3	1.58E-2	2.66E-1	2.96E-3	1.58E-1	1.46E-3	-1.38E-1	2.90E-1
GWP-f	kg CO2 eq	2.73E-1	5.85E-3	1.35E-2	2.92E-1	2.95E-3	1.20E-1	1.46E-3	-1.59E-1	2.58E-1
GWP-b	kg CO2 eq	-2.89E-2	3.55E-6	1.14E-3	-2.77E-2	1.79E-6	3.85E-2	1.30E-6	2.06E-2	3.14E-2
GWP-luluc	kg CO2 eq	2.16E-4	2.07E-6	1.14E-3	1.36E-3	1.05E-6	1.65E-5	2.50E-8	-1.86E-4	1.19E-3
ODP	kg CFC11 eq	1.58E-8	1.35E-9	1.35E-9	1.85E-8	6.80E-10	2.44E-9	3.70E-11	-8.52E-9	1.31E-8
AP	mol H+ eq	1.09E-3	3.33E-5	5.44E-5	1.18E-3	1.68E-5	1.02E-4	8.86E-7	-5.01E-4	7.99E-4
EP-fw	kg P eq	5.83E-6	4.81E-8	2.09E-7	6.09E-6	2.43E-8	4.84E-7	1.15E-9	-3.47E-6	3.13E-6
EP-m	kg N eq	2.01E-4	1.19E-5	9.19E-6	2.22E-4	6.02E-6	3.11E-5	7.15E-7	-9.77E-5	1.62E-4
EP-T	mol N eq	2.21E-3	1.31E-4	1.03E-4	2.44E-3	6.63E-5	3.42E-4	3.59E-6	-1.10E-3	1.76E-3
POCP	kg NMVOC eq	9.33E-4	3.75E-5	3.21E-5	1.00E-3	1.90E-5	1.06E-4	1.34E-6	-4.37E-4	6.92E-4
ADP-mm	kg Sb eq	1.80E-5	1.51E-7	3.28E-7	1.85E-5	7.64E-8	3.91E-7	8.87E-10	-1.55E-6	1.74E-5
ADP-f	MJ	9.02E+0	8.98E-2	1.77E-1	9.29E+0	4.53E-2	2.98E-1	2.70E-3	-4.58E+0	5.06E+0
WDP	m3 depriv.	1.80E-1	2.75E-4	6.28E-2	2.43E-1	1.39E-4	5.94E-3	1.24E-5	-1.02E-1	1.47E-1
PM	disease inc.	1.14E-8	5.28E-10	5.45E-10	1.24E-8	2.67E-10	1.60E-9	1.86E-11	-5.62E-9	8.71E-9
IR	kBq U-235 eq	8.28E-3	3.92E-4	1.66E-4	8.84E-3	1.98E-4	9.28E-4	1.26E-5	-3.55E-3	6.43E-3
ETP-fw	CTUe	4.60E+0	7.29E-2	2.80E-1	4.95E+0	3.68E-2	4.07E-1	2.67E-3	-2.24E+0	3.16E+0
HTP-c	CTUh	9.02E-11	2.59E-12	1.49E-11	1.08E-10	1.31E-12	4.00E-11	6.59E-14	-4.57E-11	1.03E-10
HTP-nc	CTUh	2.19E-9	8.69E-11	3.10E-10	2.58E-9	4.39E-11	5.16E-10	1.55E-12	-1.14E-9	2.01E-9
SQP	Pt	3.78E+0	7.68E-2	3.23E-2	3.89E+0	3.88E-2	2.32E-1	6.94E-3	-5.95E+0	-1.78E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	6.81E-1	1.29E-3	6.14E-1	1.30E+0	6.50E-4	1.43E-2	1.08E-4	-1.04E+0	2.67E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	6.81E-1	1.29E-3	6.14E-1	1.30E+0	6.50E-4	1.43E-2	1.08E-4	-1.04E+0	2.67E-1
PENRE	MJ	9.67E+0	9.53E-2	1.94E-1	9.96E+0	4.81E-2	3.18E-1	2.87E-3	-4.93E+0	5.39E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	9.67E+0	9.53E-2	1.94E-1	9.96E+0	4.81E-2	3.18E-1	2.87E-3	-4.93E+0	5.39E+0
PET	MJ	1.04E+1	9.66E-2	8.07E-1	1.13E+1	4.88E-2	3.32E-1	2.98E-3	-5.98E+0	5.66E+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	3.12E-3	1.02E-5	1.49E-3	4.62E-3	5.13E-6	2.14E-4	3.34E-6	-1.90E-3	2.94E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	2.10E-6	2.30E-7	1.72E-7	2.50E-6	1.16E-7	5.29E-7	3.25E-9	-1.66E-6	1.48E-6
NHWD	kg	1.66E-2	5.56E-3	1.68E-3	2.38E-2	2.81E-3	1.51E-2	1.19E-2	-6.09E-3	4.76E-2
RWD	kg	9.01E-6	6.10E-7	1.84E-7	9.81E-6	3.08E-7	1.19E-6	1.77E-8	-3.40E-6	7.93E-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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