

Environmental Profile

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

Ecochain v3.5.64



Product: 3067774 - SiTech+ Branch STEA 87,5° 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	2.60E-1	6.05E-3	1.70E-2	2.83E-1	3.17E-3	1.64E-1	1.56E-3	-1.48E-1	3.04E-1
GWP-f	kg CO2 eq	2.89E-1	6.04E-3	1.45E-2	3.09E-1	3.16E-3	1.26E-1	1.56E-3	-1.68E-1	2.72E-1
GWP-b	kg CO2 eq	-2.88E-2	3.67E-6	1.23E-3	-2.76E-2	1.92E-6	3.85E-2	1.38E-6	2.05E-2	3.15E-2
GWP-luluc	kg CO2 eq	2.20E-4	2.14E-6	1.23E-3	1.45E-3	1.12E-6	1.76E-5	2.66E-8	-1.88E-4	1.28E-3
ODP	kg CFC11 eq	1.61E-8	1.39E-9	1.46E-9	1.89E-8	7.29E-10	2.59E-9	3.95E-11	-8.88E-9	1.34E-8
AP	mol H+ eq	1.15E-3	3.44E-5	5.85E-5	1.24E-3	1.80E-5	1.09E-4	9.45E-7	-5.29E-4	8.41E-4
EP-fw	kg P eq	6.06E-6	4.97E-8	2.25E-7	6.34E-6	2.60E-8	5.18E-7	1.23E-9	-3.58E-6	3.30E-6
EP-m	kg N eq	2.10E-4	1.23E-5	9.89E-6	2.33E-4	6.45E-6	3.30E-5	7.53E-7	-1.03E-4	1.70E-4
EP-T	mol N eq	2.31E-3	1.36E-4	1.11E-4	2.56E-3	7.11E-5	3.63E-4	3.83E-6	-1.15E-3	1.85E-3
POCP	kg NMVOC eq	9.83E-4	3.88E-5	3.45E-5	1.06E-3	2.03E-5	1.12E-4	1.43E-6	-4.62E-4	7.28E-4
ADP-mm	kg Sb eq	1.82E-5	1.56E-7	3.53E-7	1.87E-5	8.18E-8	4.17E-7	9.46E-10	-1.62E-6	1.76E-5
ADP-f	MJ	9.59E+0	9.28E-2	1.91E-1	9.88E+0	4.86E-2	3.19E-1	2.89E-3	-4.88E+0	5.36E+0
WDP	m3 depriv.	1.92E-1	2.85E-4	6.76E-2	2.59E-1	1.49E-4	6.34E-3	1.32E-5	-1.08E-1	1.58E-1
PM	disease inc.	1.19E-8	5.46E-10	5.86E-10	1.30E-8	2.86E-10	1.71E-9	1.98E-11	-5.85E-9	9.16E-9
IR	kBq U-235 eq	8.57E-3	4.06E-4	1.78E-4	9.15E-3	2.12E-4	9.89E-4	1.35E-5	-3.69E-3	6.68E-3
ETP-fw	CTUe	4.68E+0	7.54E-2	3.01E-1	5.05E+0	3.94E-2	4.31E-1	2.83E-3	-2.28E+0	3.25E+0
HTP-c	CTUh	9.37E-11	2.68E-12	1.61E-11	1.12E-10	1.40E-12	4.27E-11	7.03E-14	-4.73E-11	1.09E-10
HTP-nc	CTUh	2.29E-9	8.98E-11	3.33E-10	2.71E-9	4.70E-11	5.51E-10	1.65E-12	-1.18E-9	2.13E-9
SQP	Pt	3.80E+0	7.94E-2	3.48E-2	3.92E+0	4.15E-2	2.48E-1	7.40E-3	-5.96E+0	-1.74E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	6.89E-1	1.33E-3	6.61E-1	1.35E+0	6.97E-4	1.53E-2	1.15E-4	-1.05E+0	3.19E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	6.89E-1	1.33E-3	6.61E-1	1.35E+0	6.97E-4	1.53E-2	1.15E-4	-1.05E+0	3.19E-1
PENRE	MJ	1.03E+1	9.85E-2	2.08E-1	1.06E+1	5.16E-2	3.40E-1	3.06E-3	-5.27E+0	5.72E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.03E+1	9.85E-2	2.08E-1	1.06E+1	5.16E-2	3.40E-1	3.06E-3	-5.27E+0	5.72E+0
PET	MJ	1.10E+1	9.99E-2	8.69E-1	1.19E+1	5.22E-2	3.55E-1	3.18E-3	-6.31E+0	6.04E+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	3.29E-3	1.05E-5	1.60E-3	4.91E-3	5.49E-6	2.25E-4	3.57E-6	-1.98E-3	3.16E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	2.16E-6	2.37E-7	1.86E-7	2.58E-6	1.24E-7	5.62E-7	3.46E-9	-1.73E-6	1.54E-6
NHWD	kg	1.72E-2	5.75E-3	1.81E-3	2.47E-2	3.01E-3	1.61E-2	1.27E-2	-6.32E-3	5.03E-2
RWD	kg	9.26E-6	6.31E-7	1.98E-7	1.01E-5	3.30E-7	1.27E-6	1.89E-8	-3.53E-6	8.18E-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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