

Environmental Profile

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

Ecochain v3.5.64



Product: 3067776 - SiTech+ Branch STEA 87,5° 75X75
 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	5.57E-1	8.23E-3	3.87E-2	6.04E-1	7.07E-3	3.29E-1	3.43E-3	-3.29E-1	6.13E-1
GWP-f	kg CO2 eq	6.14E-1	8.22E-3	3.31E-2	6.55E-1	7.06E-3	2.54E-1	3.43E-3	-3.64E-1	5.56E-1
GWP-b	kg CO2 eq	-5.70E-2	4.99E-6	2.80E-3	-5.42E-2	4.29E-6	7.42E-2	3.02E-6	3.45E-2	5.45E-2
GWP-luluc	kg CO2 eq	4.03E-4	2.91E-6	2.80E-3	3.20E-3	2.50E-6	3.97E-5	5.81E-8	-3.39E-4	2.91E-3
ODP	kg CFC11 eq	2.71E-8	1.89E-9	3.32E-9	3.23E-8	1.63E-9	5.65E-9	8.65E-11	-1.77E-8	2.20E-8
AP	mol H+ eq	2.36E-3	4.68E-5	1.34E-4	2.54E-3	4.02E-5	2.37E-4	2.06E-6	-1.13E-3	1.69E-3
EP-fw	kg P eq	1.19E-5	6.77E-8	5.15E-7	1.25E-5	5.81E-8	1.16E-6	2.68E-9	-7.00E-6	6.69E-6
EP-m	kg N eq	4.27E-4	1.68E-5	2.26E-5	4.67E-4	1.44E-5	7.11E-5	1.54E-6	-2.15E-4	3.38E-4
EP-T	mol N eq	4.72E-3	1.85E-4	2.54E-4	5.15E-3	1.59E-4	7.82E-4	8.38E-6	-2.41E-3	3.69E-3
POCP	kg NMVOC eq	2.04E-3	5.28E-5	7.88E-5	2.17E-3	4.53E-5	2.44E-4	3.14E-6	-9.93E-4	1.47E-3
ADP-mm	kg Sb eq	2.86E-5	2.13E-7	8.07E-7	2.97E-5	1.83E-7	9.18E-7	2.07E-9	-3.16E-6	2.76E-5
ADP-f	MJ	2.08E+1	1.26E-1	4.36E-1	2.13E+1	1.08E-1	7.09E-1	6.31E-3	-1.08E+1	1.14E+1
WDP	m3 depriv.	4.12E-1	3.87E-4	1.54E-1	5.67E-1	3.33E-4	1.40E-2	2.89E-5	-2.27E-1	3.54E-1
PM	disease inc.	2.37E-8	7.42E-10	1.34E-9	2.57E-8	6.37E-10	3.78E-9	4.34E-11	-1.20E-8	1.82E-8
IR	kBq U-235 eq	1.61E-2	5.52E-4	4.07E-4	1.70E-2	4.74E-4	2.19E-3	2.94E-5	-7.45E-3	1.23E-2
ETP-fw	CTUe	8.39E+0	1.02E-1	6.88E-1	9.19E+0	8.80E-2	9.05E-1	5.87E-3	-4.21E+0	5.98E+0
HTP-c	CTUh	1.87E-10	3.65E-12	3.67E-11	2.27E-10	3.13E-12	9.52E-11	1.53E-13	-9.65E-11	2.29E-10
HTP-nc	CTUh	4.60E-9	1.22E-10	7.61E-10	5.48E-9	1.05E-10	1.21E-9	3.53E-12	-2.41E-9	4.40E-9
SQP	Pt	7.30E+0	1.08E-1	7.94E-2	7.49E+0	9.27E-2	5.56E-1	1.62E-2	-1.08E+1	-2.65E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.33E+0	1.81E-3	1.51E+0	2.84E+0	1.56E-3	3.43E-2	2.49E-4	-1.90E+0	9.76E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.33E+0	1.81E-3	1.51E+0	2.84E+0	1.56E-3	3.43E-2	2.49E-4	-1.90E+0	9.76E-1
PENRE	MJ	2.23E+1	1.34E-1	4.76E-1	2.29E+1	1.15E-1	7.56E-1	6.70E-3	-1.16E+1	1.22E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	2.23E+1	1.34E-1	4.76E-1	2.29E+1	1.15E-1	7.56E-1	6.70E-3	-1.16E+1	1.22E+1
PET	MJ	2.36E+1	1.36E-1	1.98E+0	2.57E+1	1.17E-1	7.90E-1	6.95E-3	-1.35E+1	1.31E+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	6.80E-3	1.43E-5	3.66E-3	1.05E-2	1.23E-5	4.68E-4	7.80E-6	-4.02E-3	6.95E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	4.09E-6	3.23E-7	4.24E-7	4.84E-6	2.77E-7	1.22E-6	7.58E-9	-3.49E-6	2.85E-6
NHWD	kg	3.35E-2	7.82E-3	4.13E-3	4.55E-2	6.72E-3	3.55E-2	2.78E-2	-1.30E-2	1.02E-1
RWD	kg	1.66E-5	8.58E-7	4.52E-7	1.79E-5	7.37E-7	2.80E-6	4.13E-8	-7.05E-6	1.45E-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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