

Environmental Profile

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

Ecochain v3.5.64



Product: 3067771 - SiTech+ Branch STEA 67,5° 110X110
 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	1.42E+0	2.86E-2	1.03E-1	1.55E+0	1.87E-2	8.69E-1	9.01E-3	-8.72E-1	1.57E+0
GWP-f	kg CO2 eq	1.60E+0	2.86E-2	8.85E-2	1.72E+0	1.87E-2	6.39E-1	9.01E-3	-9.59E-1	1.43E+0
GWP-b	kg CO2 eq	-1.86E-1	1.74E-5	7.47E-3	-1.78E-1	1.14E-5	2.30E-1	7.92E-6	8.80E-2	1.40E-1
GWP-luluc	kg CO2 eq	1.04E-3	1.01E-5	7.47E-3	8.52E-3	6.62E-6	1.06E-4	1.52E-7	-8.91E-4	7.74E-3
ODP	kg CFC11 eq	6.24E-8	6.59E-9	8.88E-9	7.79E-8	4.31E-9	1.50E-8	2.27E-10	-4.57E-8	5.17E-8
AP	mol H+ eq	6.09E-3	1.63E-4	3.57E-4	6.61E-3	1.07E-4	6.26E-4	5.41E-6	-3.01E-3	4.34E-3
EP-fw	kg P eq	3.04E-5	2.35E-7	1.37E-6	3.20E-5	1.54E-7	3.09E-6	7.01E-9	-1.85E-5	1.67E-5
EP-m	kg N eq	1.11E-3	5.83E-5	6.03E-5	1.23E-3	3.81E-5	1.88E-4	3.91E-6	-5.75E-4	8.80E-4
EP-T	mol N eq	1.22E-2	6.42E-4	6.77E-4	1.35E-2	4.20E-4	2.06E-3	2.20E-5	-6.44E-3	9.60E-3
POCP	kg NMVOC eq	5.28E-3	1.84E-4	2.10E-4	5.67E-3	1.20E-4	6.44E-4	8.24E-6	-2.66E-3	3.79E-3
ADP-mm	kg Sb eq	6.02E-5	7.40E-7	2.15E-6	6.31E-5	4.84E-7	2.44E-6	5.43E-9	-7.97E-6	5.81E-5
ADP-f	MJ	5.45E+1	4.39E-1	1.16E+0	5.61E+1	2.87E-1	1.89E+0	1.66E-2	-2.86E+1	2.96E+1
WDP	m3 depriv.	1.08E+0	1.35E-3	4.12E-1	1.49E+0	8.81E-4	3.68E-2	7.58E-5	-6.02E-1	9.26E-1
PM	disease inc.	6.07E-8	2.58E-9	3.57E-9	6.69E-8	1.69E-9	1.01E-8	1.14E-10	-3.21E-8	4.66E-8
IR	kBq U-235 eq	3.93E-2	1.92E-3	1.09E-3	4.23E-2	1.25E-3	5.83E-3	7.71E-5	-1.97E-2	2.98E-2
ETP-fw	CTUe	2.11E+1	3.56E-1	1.84E+0	2.33E+1	2.33E-1	2.35E+0	1.50E-2	-1.10E+1	1.49E+1
HTP-c	CTUh	4.90E-10	1.27E-11	9.80E-11	6.01E-10	8.30E-12	2.54E-10	4.01E-13	-2.66E-10	5.98E-10
HTP-nc	CTUh	1.18E-8	4.25E-10	2.03E-9	1.43E-8	2.78E-10	3.21E-9	9.16E-12	-6.43E-9	1.13E-8
SQP	Pt	2.19E+1	3.75E-1	2.12E-1	2.25E+1	2.46E-1	1.48E+0	4.25E-2	-3.05E+1	-6.18E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	3.89E+0	6.30E-3	4.03E+0	7.92E+0	4.12E-3	9.14E-2	6.52E-4	-5.30E+0	2.72E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	3.89E+0	6.30E-3	4.03E+0	7.92E+0	4.12E-3	9.14E-2	6.52E-4	-5.30E+0	2.72E+0
PENRE	MJ	5.84E+1	4.66E-1	1.27E+0	6.02E+1	3.05E-1	2.01E+0	1.76E-2	-3.08E+1	3.17E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	5.84E+1	4.66E-1	1.27E+0	6.02E+1	3.05E-1	2.01E+0	1.76E-2	-3.08E+1	3.17E+1
PET	MJ	6.23E+1	4.72E-1	5.30E+0	6.81E+1	3.09E-1	2.10E+0	1.82E-2	-3.61E+1	3.44E+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	1.75E-2	4.97E-5	9.79E-3	2.73E-2	3.25E-5	1.20E-3	2.05E-5	-1.06E-2	1.80E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.04E-5	1.12E-6	1.13E-6	1.26E-5	7.34E-7	3.23E-6	1.99E-8	-9.14E-6	7.48E-6
NHWD	kg	8.64E-2	2.72E-2	1.10E-2	1.25E-1	1.78E-2	9.39E-2	7.30E-2	-3.56E-2	2.74E-1
RWD	kg	3.95E-5	2.98E-6	1.21E-6	4.37E-5	1.95E-6	7.46E-6	1.08E-7	-1.86E-5	3.47E-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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