

Environmental Profile

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

Ecochain v3.5.64



Product: 3067777 - SiTech+ Branch Reduced STEA 87,5° 90X50
 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 non-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	5.68E-1	1.22E-2	3.96E-2	6.20E-1	7.28E-3	3.56E-1	3.54E-3	-3.40E-1	6.47E-1
GWP-f	kg CO2 eq	6.39E-1	1.22E-2	3.39E-2	6.85E-1	7.27E-3	2.65E-1	3.54E-3	-3.79E-1	5.83E-1
GWP-b	kg CO2 eq	-7.17E-2	7.38E-6	2.86E-3	-6.88E-2	4.42E-6	9.08E-2	3.12E-6	3.89E-2	6.09E-2
GWP-luluc	kg CO2 eq	4.43E-4	4.30E-6	2.86E-3	3.31E-3	2.57E-6	4.09E-5	6.00E-8	-3.78E-4	2.98E-3
ODP	kg CFC11 eq	2.95E-8	2.80E-9	3.40E-9	3.57E-8	1.68E-9	5.88E-9	8.93E-11	-1.88E-8	2.45E-8
AP	mol H+ eq	2.48E-3	6.92E-5	1.37E-4	2.69E-3	4.14E-5	2.46E-4	2.13E-6	-1.19E-3	1.79E-3
EP-fw	kg P eq	1.27E-5	1.00E-7	5.27E-7	1.33E-5	5.98E-8	1.20E-6	2.77E-9	-7.58E-6	6.97E-6
EP-m	kg N eq	4.52E-4	2.48E-5	2.31E-5	5.00E-4	1.48E-5	7.41E-5	1.61E-6	-2.28E-4	3.62E-4
EP-T	mol N eq	4.98E-3	2.73E-4	2.60E-4	5.51E-3	1.63E-4	8.15E-4	8.66E-6	-2.56E-3	3.94E-3
POCP	kg NMVOC eq	2.14E-3	7.80E-5	8.06E-5	2.30E-3	4.67E-5	2.53E-4	3.24E-6	-1.05E-3	1.55E-3
ADP-mm	kg Sb eq	3.10E-5	3.14E-7	8.26E-7	3.22E-5	1.88E-7	9.53E-7	2.14E-9	-3.35E-6	3.00E-5
ADP-f	MJ	2.15E+1	1.87E-1	4.46E-1	2.22E+1	1.12E-1	7.34E-1	6.52E-3	-1.12E+1	1.19E+1
WDP	m3 depriv.	4.27E-1	5.73E-4	1.58E-1	5.86E-1	3.43E-4	1.44E-2	2.99E-5	-2.39E-1	3.62E-1
PM	disease inc.	2.51E-8	1.10E-9	1.37E-9	2.76E-8	6.56E-10	3.91E-9	4.48E-11	-1.29E-8	1.93E-8
IR	kBq U-235 eq	1.71E-2	8.15E-4	4.16E-4	1.83E-2	4.88E-4	2.27E-3	3.04E-5	-7.97E-3	1.32E-2
ETP-fw	CTUe	9.19E+0	1.52E-1	7.04E-1	1.00E+1	9.06E-2	9.44E-1	6.10E-3	-4.63E+0	6.45E+0
HTP-c	CTUh	2.01E-10	5.39E-12	3.75E-11	2.44E-10	3.23E-12	9.85E-11	1.58E-13	-1.06E-10	2.40E-10
HTP-nc	CTUh	4.87E-9	1.81E-10	7.79E-10	5.83E-9	1.08E-10	1.25E-9	3.66E-12	-2.58E-9	4.61E-9
SQP	Pt	8.75E+0	1.60E-1	8.13E-2	9.00E+0	9.55E-2	5.74E-1	1.67E-2	-1.26E+1	-2.95E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.56E+0	2.68E-3	1.54E+0	3.11E+0	1.60E-3	3.54E-2	2.58E-4	-2.20E+0	9.40E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.56E+0	2.68E-3	1.54E+0	3.11E+0	1.60E-3	3.54E-2	2.58E-4	-2.20E+0	9.40E-1
PENRE	MJ	2.31E+1	1.98E-1	4.87E-1	2.38E+1	1.19E-1	7.82E-1	6.92E-3	-1.20E+1	1.27E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	2.31E+1	1.98E-1	4.87E-1	2.38E+1	1.19E-1	7.82E-1	6.92E-3	-1.20E+1	1.27E+1
PET	MJ	2.47E+1	2.01E-1	2.03E+0	2.69E+1	1.20E-1	8.17E-1	7.17E-3	-1.42E+1	1.36E+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	7.12E-3	2.11E-5	3.75E-3	1.09E-2	1.26E-5	4.87E-4	8.06E-6	-4.28E-3	7.11E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	4.42E-6	4.77E-7	4.34E-7	5.33E-6	2.85E-7	1.27E-6	7.83E-9	-3.73E-6	3.16E-6
NHWD	kg	3.60E-2	1.16E-2	4.23E-3	5.18E-2	6.92E-3	3.67E-2	2.87E-2	-1.41E-2	1.10E-1
RWD	kg	1.78E-5	1.27E-6	4.63E-7	1.95E-5	7.59E-7	2.91E-6	4.26E-8	-7.56E-6	1.57E-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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