

Environmental Profile

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

Ecochain v3.5.64



Product: 3067778 - SiTech+ Branch Reduced STEA 87,5° 110X50
 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	9.45E-1	1.86E-2	6.73E-2	1.03E+0	1.23E-2	5.48E-1	5.91E-3	-5.70E-1	1.03E+0
GWP-f	kg CO2 eq	1.04E+0	1.85E-2	5.76E-2	1.12E+0	1.22E-2	4.21E-1	5.91E-3	-6.24E-1	9.35E-1
GWP-b	kg CO2 eq	-9.93E-2	1.13E-5	4.86E-3	-9.45E-2	7.44E-6	1.27E-1	5.19E-6	5.45E-2	8.72E-2
GWP-luluc	kg CO2 eq	6.53E-4	6.56E-6	4.86E-3	5.52E-3	4.34E-6	6.91E-5	9.98E-8	-5.51E-4	5.05E-3
ODP	kg CFC11 eq	4.08E-8	4.27E-9	5.78E-9	5.09E-8	2.82E-9	9.75E-9	1.49E-10	-2.94E-8	3.41E-8
AP	mol H+ eq	3.96E-3	1.06E-4	2.32E-4	4.30E-3	6.98E-5	4.08E-4	3.55E-6	-1.94E-3	2.85E-3
EP-fw	kg P eq	1.96E-5	1.53E-7	8.95E-7	2.07E-5	1.01E-7	2.02E-6	4.60E-9	-1.17E-5	1.11E-5
EP-m	kg N eq	7.16E-4	3.78E-5	3.92E-5	7.93E-4	2.50E-5	1.22E-4	2.57E-6	-3.67E-4	5.75E-4
EP-T	mol N eq	7.91E-3	4.16E-4	4.41E-4	8.76E-3	2.75E-4	1.34E-3	1.44E-5	-4.12E-3	6.28E-3
POCP	kg NMVOC eq	3.43E-3	1.19E-4	1.37E-4	3.69E-3	7.86E-5	4.19E-4	5.40E-6	-1.71E-3	2.48E-3
ADP-mm	kg Sb eq	4.05E-5	4.80E-7	1.40E-6	4.24E-5	3.17E-7	1.59E-6	3.56E-9	-5.18E-6	3.91E-5
ADP-f	MJ	3.56E+1	2.85E-1	7.58E-1	3.67E+1	1.88E-1	1.23E+0	1.09E-2	-1.87E+1	1.94E+1
WDP	m3 depriv.	7.04E-1	8.73E-4	2.68E-1	9.73E-1	5.77E-4	2.41E-2	4.97E-5	-3.88E-1	6.09E-1
PM	disease inc.	3.92E-8	1.67E-9	2.33E-9	4.32E-8	1.11E-9	6.55E-9	7.46E-11	-2.03E-8	3.06E-8
IR	kBq U-235 eq	2.57E-2	1.24E-3	7.07E-4	2.77E-2	8.22E-4	3.79E-3	5.05E-5	-1.26E-2	1.98E-2
ETP-fw	CTUe	1.34E+1	2.31E-1	1.20E+0	1.48E+1	1.53E-1	1.53E+0	9.85E-3	-6.89E+0	9.65E+0
HTP-c	CTUh	3.11E-10	8.22E-12	6.38E-11	3.83E-10	5.43E-12	1.66E-10	2.63E-13	-1.64E-10	3.90E-10
HTP-nc	CTUh	7.65E-9	2.75E-10	1.32E-9	9.25E-9	1.82E-10	2.09E-9	6.01E-12	-4.08E-9	7.46E-9
SQP	Pt	1.24E+1	2.43E-1	1.38E-1	1.28E+1	1.61E-1	9.68E-1	2.79E-2	-1.78E+1	-3.90E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	2.25E+0	4.08E-3	2.62E+0	4.88E+0	2.70E-3	5.97E-2	4.27E-4	-3.14E+0	1.81E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	2.25E+0	4.08E-3	2.62E+0	4.88E+0	2.70E-3	5.97E-2	4.27E-4	-3.14E+0	1.81E+0
PENRE	MJ	3.82E+1	3.02E-1	8.27E-1	3.93E+1	2.00E-1	1.31E+0	1.15E-2	-2.01E+1	2.07E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	3.82E+1	3.02E-1	8.27E-1	3.93E+1	2.00E-1	1.31E+0	1.15E-2	-2.01E+1	2.07E+1
PET	MJ	4.05E+1	3.06E-1	3.45E+0	4.42E+1	2.02E-1	1.37E+0	1.19E-2	-2.33E+1	2.26E+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	1.14E-2	3.22E-5	6.37E-3	1.78E-2	2.13E-5	7.85E-4	1.34E-5	-6.80E-3	1.19E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	6.64E-6	7.28E-7	7.37E-7	8.10E-6	4.81E-7	2.10E-6	1.30E-8	-5.85E-6	4.85E-6
NHWD	kg	5.52E-2	1.76E-2	7.18E-3	8.00E-2	1.17E-2	6.13E-2	4.79E-2	-2.22E-2	1.79E-1
RWD	kg	2.59E-5	1.93E-6	7.86E-7	2.86E-5	1.28E-6	4.85E-6	7.10E-8	-1.18E-5	2.30E-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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