

Environmental Profile

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

Ecochain v3.5.64



Product: 3067753 - SiTech+ Branch STEA 45° 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	6.53E-1	9.79E-3	4.64E-2	7.09E-1	8.44E-3	3.85E-1	4.08E-3	-3.93E-1	7.14E-1
GWP-f	kg CO2 eq	7.24E-1	9.78E-3	3.97E-2	7.73E-1	8.43E-3	2.95E-1	4.08E-3	-4.32E-1	6.49E-1
GWP-b	kg CO2 eq	-7.12E-2	5.94E-6	3.35E-3	-6.78E-2	5.12E-6	9.08E-2	3.59E-6	3.87E-2	6.17E-2
GWP-luluc	kg CO2 eq	4.62E-4	3.46E-6	3.35E-3	3.81E-3	2.98E-6	4.75E-5	6.89E-8	-3.89E-4	3.48E-3
ODP	kg CFC11 eq	2.96E-8	2.26E-9	3.98E-9	3.59E-8	1.94E-9	6.73E-9	1.03E-10	-2.06E-8	2.40E-8
AP	mol H+ eq	2.76E-3	5.57E-5	1.60E-4	2.98E-3	4.80E-5	2.81E-4	2.45E-6	-1.34E-3	1.97E-3
EP-fw	kg P eq	1.38E-5	8.05E-8	6.16E-7	1.45E-5	6.94E-8	1.39E-6	3.18E-9	-8.17E-6	7.74E-6
EP-m	kg N eq	4.99E-4	1.99E-5	2.70E-5	5.46E-4	1.72E-5	8.43E-5	1.80E-6	-2.55E-4	3.95E-4
EP-T	mol N eq	5.51E-3	2.20E-4	3.04E-4	6.04E-3	1.89E-4	9.27E-4	9.95E-6	-2.86E-3	4.31E-3
POCP	kg NMVOC eq	2.39E-3	6.28E-5	9.44E-5	2.55E-3	5.41E-5	2.89E-4	3.73E-6	-1.18E-3	1.71E-3
ADP-mm	kg Sb eq	3.01E-5	2.53E-7	9.66E-7	3.13E-5	2.18E-7	1.10E-6	2.46E-9	-3.65E-6	2.90E-5
ADP-f	MJ	2.46E+1	1.50E-1	5.22E-1	2.53E+1	1.29E-1	8.48E-1	7.49E-3	-1.29E+1	1.34E+1
WDP	m3 depriv.	4.87E-1	4.61E-4	1.85E-1	6.72E-1	3.97E-4	1.66E-2	3.43E-5	-2.69E-1	4.21E-1
PM	disease inc.	2.75E-8	8.83E-10	1.60E-9	3.00E-8	7.61E-10	4.51E-9	5.15E-11	-1.41E-8	2.12E-8
IR	kBq U-235 eq	1.82E-2	6.57E-4	4.87E-4	1.94E-2	5.66E-4	2.61E-3	3.49E-5	-8.75E-3	1.38E-2
ETP-fw	CTUe	9.51E+0	1.22E-1	8.24E-1	1.05E+1	1.05E-1	1.06E+0	6.86E-3	-4.84E+0	6.79E+0
HTP-c	CTUh	2.19E-10	4.34E-12	4.39E-11	2.67E-10	3.74E-12	1.14E-10	1.82E-13	-1.15E-10	2.70E-10
HTP-nc	CTUh	5.36E-9	1.45E-10	9.11E-10	6.41E-9	1.25E-10	1.44E-9	4.17E-12	-2.84E-9	5.15E-9
SQP	Pt	8.83E+0	1.29E-1	9.51E-2	9.06E+0	1.11E-1	6.66E-1	1.92E-2	-1.27E+1	-2.82E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.60E+0	2.16E-3	1.81E+0	3.41E+0	1.86E-3	4.10E-2	2.95E-4	-2.23E+0	1.23E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.60E+0	2.16E-3	1.81E+0	3.41E+0	1.86E-3	4.10E-2	2.95E-4	-2.23E+0	1.23E+0
PENRE	MJ	2.64E+1	1.59E-1	5.70E-1	2.71E+1	1.37E-1	9.03E-1	7.95E-3	-1.39E+1	1.43E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	2.64E+1	1.59E-1	5.70E-1	2.71E+1	1.37E-1	9.03E-1	7.95E-3	-1.39E+1	1.43E+1
PET	MJ	2.80E+1	1.62E-1	2.38E+0	3.06E+1	1.39E-1	9.44E-1	8.25E-3	-1.61E+1	1.56E+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	7.96E-3	1.70E-5	4.39E-3	1.24E-2	1.46E-5	5.47E-4	9.26E-6	-4.72E-3	8.22E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	4.70E-6	3.84E-7	5.07E-7	5.59E-6	3.31E-7	1.45E-6	9.00E-9	-4.09E-6	3.29E-6
NHWD	kg	3.88E-2	9.31E-3	4.95E-3	5.31E-2	8.02E-3	4.22E-2	3.30E-2	-1.54E-2	1.21E-1
RWD	kg	1.86E-5	1.02E-6	5.42E-7	2.01E-5	8.80E-7	3.34E-6	4.90E-8	-8.25E-6	1.61E-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



Ecochain Technologies BV
H.J.E. Wenckebachweg 123, 1096 AM Amsterdam, The Netherlands
<https://www.ecochain.com>
+31 20 3035 777