

Environmental Profile

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

Ecochain v3.5.64



Product: 3067718 - SiTech+ Bend STB 30° 50
 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	1.35E-1	3.09E-3	8.85E-3	1.47E-1	1.65E-3	8.42E-2	8.12E-4	-7.71E-2	1.57E-1
GWP-f	kg CO2 eq	1.49E-1	3.08E-3	7.58E-3	1.60E-1	1.65E-3	6.49E-2	8.13E-4	-8.73E-2	1.40E-1
GWP-b	kg CO2 eq	-1.44E-2	1.87E-6	6.40E-4	-1.37E-2	1.00E-6	1.92E-2	7.19E-7	1.03E-2	1.58E-2
GWP-luluc	kg CO2 eq	1.11E-4	1.09E-6	6.40E-4	7.52E-4	5.83E-7	9.19E-6	1.38E-8	-9.47E-5	6.67E-4
ODP	kg CFC11 eq	8.12E-9	7.11E-10	7.60E-10	9.59E-9	3.80E-10	1.34E-9	2.05E-11	-4.55E-9	6.78E-9
AP	mol H+ eq	5.92E-4	1.76E-5	3.06E-5	6.40E-4	9.38E-6	5.64E-5	4.91E-7	-2.73E-4	4.33E-4
EP-fw	kg P eq	3.10E-6	2.54E-8	1.18E-7	3.25E-6	1.36E-8	2.70E-7	6.37E-10	-1.82E-6	1.71E-6
EP-m	kg N eq	1.08E-4	6.29E-6	5.16E-6	1.20E-4	3.36E-6	1.71E-5	3.89E-7	-5.28E-5	8.76E-5
EP-T	mol N eq	1.19E-3	6.93E-5	5.80E-5	1.32E-3	3.70E-5	1.88E-4	1.99E-6	-5.93E-4	9.51E-4
POCP	kg NMVOC eq	5.07E-4	1.98E-5	1.80E-5	5.44E-4	1.06E-5	5.82E-5	7.45E-7	-2.39E-4	3.75E-4
ADP-mm	kg Sb eq	9.16E-6	7.98E-8	1.84E-7	9.42E-6	4.26E-8	2.17E-7	4.92E-10	-8.28E-7	8.86E-6
ADP-f	MJ	4.98E+0	4.73E-2	9.97E-2	5.12E+0	2.53E-2	1.66E-1	1.50E-3	-2.54E+0	2.78E+0
WDP	m3 depriv.	9.93E-2	1.45E-4	3.53E-2	1.35E-1	7.76E-5	3.30E-3	6.87E-6	-5.56E-2	8.25E-2
PM	disease inc.	6.09E-9	2.78E-10	3.06E-10	6.67E-9	1.49E-10	8.88E-10	1.03E-11	-3.00E-9	4.72E-9
IR	kBq U-235 eq	4.37E-3	2.07E-4	9.30E-5	4.67E-3	1.11E-4	5.14E-4	7.00E-6	-1.89E-3	3.42E-3
ETP-fw	CTUe	2.36E+0	3.84E-2	1.57E-1	2.56E+0	2.05E-2	2.22E-1	1.46E-3	-1.15E+0	1.65E+0
HTP-c	CTUh	4.80E-11	1.37E-12	8.39E-12	5.77E-11	7.31E-13	2.22E-11	3.65E-14	-2.42E-11	5.66E-11
HTP-nc	CTUh	1.17E-9	4.58E-11	1.74E-10	1.39E-9	2.45E-11	2.86E-10	8.55E-13	-6.05E-10	1.10E-9
SQP	Pt	1.91E+0	4.05E-2	1.82E-2	1.97E+0	2.16E-2	1.29E-1	3.85E-3	-2.98E+0	-8.61E-1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	3.47E-1	6.79E-4	3.45E-1	6.93E-1	3.63E-4	7.97E-3	5.96E-5	-5.25E-1	1.76E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	3.47E-1	6.79E-4	3.45E-1	6.93E-1	3.63E-4	7.97E-3	5.96E-5	-5.25E-1	1.76E-1
PENRE	MJ	5.34E+0	5.03E-2	1.09E-1	5.50E+0	2.68E-2	1.77E-1	1.59E-3	-2.74E+0	2.96E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	5.34E+0	5.03E-2	1.09E-1	5.50E+0	2.68E-2	1.77E-1	1.59E-3	-2.74E+0	2.96E+0
PET	MJ	5.68E+0	5.09E-2	4.54E-1	6.19E+0	2.72E-2	1.85E-1	1.65E-3	-3.26E+0	3.14E+0
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	1.70E-3	5.36E-6	8.38E-4	2.54E-3	2.86E-6	1.16E-4	1.85E-6	-1.02E-3	1.65E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.10E-6	1.21E-7	9.69E-8	1.32E-6	6.47E-8	2.91E-7	1.80E-9	-8.89E-7	7.88E-7
NHWD	kg	8.77E-3	2.93E-3	9.44E-4	1.27E-2	1.57E-3	8.38E-3	6.61E-3	-3.24E-3	2.60E-2
RWD	kg	4.71E-6	3.22E-7	1.03E-7	5.13E-6	1.72E-7	6.59E-7	9.81E-9	-1.80E-6	4.17E-6
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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