

Environmental Profile

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

Ecochain v3.5.64



Product: 3067710 - SiTech+ Bend STB 15° 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	1.29E-1	3.01E-3	8.40E-3	1.41E-1	1.57E-3	8.19E-2	7.75E-4	-7.34E-2	1.51E-1
GWP-f	kg CO2 eq	1.43E-1	3.01E-3	7.19E-3	1.54E-1	1.57E-3	6.26E-2	7.75E-4	-8.36E-2	1.35E-1
GWP-b	kg CO2 eq	-1.44E-2	1.83E-6	6.07E-4	-1.38E-2	9.52E-7	1.93E-2	6.87E-7	1.03E-2	1.57E-2
GWP-luluc	kg CO2 eq	1.10E-4	1.07E-6	6.07E-4	7.18E-4	5.55E-7	8.75E-6	1.32E-8	-9.40E-5	6.33E-4
ODP	kg CFC11 eq	8.02E-9	6.94E-10	7.22E-10	9.43E-9	3.61E-10	1.29E-9	1.96E-11	-4.42E-9	6.68E-9
AP	mol H+ eq	5.71E-4	1.71E-5	2.90E-5	6.17E-4	8.93E-6	5.39E-5	4.69E-7	-2.63E-4	4.18E-4
EP-fw	kg P eq	3.02E-6	2.48E-8	1.12E-7	3.15E-6	1.29E-8	2.57E-7	6.08E-10	-1.78E-6	1.64E-6
EP-m	kg N eq	1.05E-4	6.14E-6	4.90E-6	1.16E-4	3.20E-6	1.64E-5	3.74E-7	-5.10E-5	8.46E-5
EP-T	mol N eq	1.15E-3	6.76E-5	5.51E-5	1.27E-3	3.52E-5	1.80E-4	1.90E-6	-5.73E-4	9.17E-4
POCP	kg NMVOC eq	4.88E-4	1.93E-5	1.71E-5	5.25E-4	1.01E-5	5.58E-5	7.11E-7	-2.29E-4	3.62E-4
ADP-mm	kg Sb eq	9.08E-6	7.79E-8	1.75E-7	9.33E-6	4.06E-8	2.07E-7	4.70E-10	-8.03E-7	8.78E-6
ADP-f	MJ	4.76E+0	4.62E-2	9.46E-2	4.90E+0	2.41E-2	1.58E-1	1.43E-3	-2.42E+0	2.66E+0
WDP	m3 depriv.	9.51E-2	1.42E-4	3.35E-2	1.29E-1	7.39E-5	3.15E-3	6.56E-6	-5.36E-2	7.84E-2
PM	disease inc.	5.90E-9	2.72E-10	2.90E-10	6.46E-9	1.42E-10	8.48E-10	9.83E-12	-2.91E-9	4.55E-9
IR	kBq U-235 eq	4.27E-3	2.02E-4	8.83E-5	4.56E-3	1.05E-4	4.91E-4	6.68E-6	-1.84E-3	3.32E-3
ETP-fw	CTUe	2.33E+0	3.75E-2	1.49E-1	2.52E+0	1.96E-2	2.14E-1	1.40E-3	-1.14E+0	1.62E+0
HTP-c	CTUh	4.67E-11	1.34E-12	7.96E-12	5.59E-11	6.96E-13	2.12E-11	3.49E-14	-2.35E-11	5.43E-11
HTP-nc	CTUh	1.14E-9	4.47E-11	1.65E-10	1.35E-9	2.33E-11	2.73E-10	8.19E-13	-5.88E-10	1.06E-9
SQP	Pt	1.90E+0	3.95E-2	1.72E-2	1.96E+0	2.06E-2	1.23E-1	3.67E-3	-2.98E+0	-8.74E-1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	3.44E-1	6.63E-4	3.27E-1	6.72E-1	3.45E-4	7.60E-3	5.70E-5	-5.24E-1	1.56E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	3.44E-1	6.63E-4	3.27E-1	6.72E-1	3.45E-4	7.60E-3	5.70E-5	-5.24E-1	1.56E-1
PENRE	MJ	5.11E+0	4.91E-2	1.03E-1	5.26E+0	2.56E-2	1.68E-1	1.52E-3	-2.61E+0	2.84E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	5.11E+0	4.91E-2	1.03E-1	5.26E+0	2.56E-2	1.68E-1	1.52E-3	-2.61E+0	2.84E+0
PET	MJ	5.45E+0	4.97E-2	4.31E-1	5.93E+0	2.59E-2	1.76E-1	1.58E-3	-3.14E+0	3.00E+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	1.63E-3	5.23E-6	7.95E-4	2.44E-3	2.72E-6	1.12E-4	1.77E-6	-9.86E-4	1.57E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.08E-6	1.18E-7	9.20E-8	1.29E-6	6.16E-8	2.79E-7	1.72E-9	-8.62E-7	7.67E-7
NHWD	kg	8.55E-3	2.86E-3	8.96E-4	1.23E-2	1.49E-3	8.01E-3	6.31E-3	-3.15E-3	2.50E-2
RWD	kg	4.61E-6	3.14E-7	9.82E-8	5.03E-6	1.64E-7	6.30E-7	9.37E-9	-1.75E-6	4.07E-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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