

Environmental Profile

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

Ecochain v3.5.64



Product: 3067721 - SiTech+ Bend STB 30° 110
 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	7.58E-1	1.43E-2	5.34E-2	8.25E-1	9.87E-3	4.23E-1	4.75E-3	-4.61E-1	8.02E-1
GWP-f	kg CO2 eq	8.28E-1	1.43E-2	4.57E-2	8.88E-1	9.86E-3	3.34E-1	4.75E-3	-4.96E-1	7.41E-1
GWP-b	kg CO2 eq	-7.06E-2	8.67E-6	3.86E-3	-6.68E-2	5.99E-6	8.93E-2	4.17E-6	3.53E-2	5.78E-2
GWP-luluc	kg CO2 eq	4.69E-4	5.05E-6	3.86E-3	4.33E-3	3.49E-6	5.55E-5	8.02E-8	-3.79E-4	4.01E-3
ODP	kg CFC11 eq	3.04E-8	3.29E-9	4.59E-9	3.83E-8	2.27E-9	7.73E-9	1.19E-10	-2.27E-8	2.57E-8
AP	mol H+ eq	3.12E-3	8.13E-5	1.84E-4	3.38E-3	5.62E-5	3.24E-4	2.85E-6	-1.51E-3	2.25E-3
EP-fw	kg P eq	1.50E-5	1.17E-7	7.10E-7	1.59E-5	8.12E-8	1.62E-6	3.69E-9	-8.63E-6	8.93E-6
EP-m	kg N eq	5.55E-4	2.91E-5	3.11E-5	6.16E-4	2.01E-5	9.65E-5	2.05E-6	-2.84E-4	4.50E-4
EP-T	mol N eq	6.16E-3	3.21E-4	3.50E-4	6.83E-3	2.22E-4	1.06E-3	1.16E-5	-3.18E-3	4.94E-3
POCP	kg NMVOC eq	2.70E-3	9.16E-5	1.09E-4	2.90E-3	6.33E-5	3.32E-4	4.34E-6	-1.34E-3	1.96E-3
ADP-mm	kg Sb eq	3.04E-5	3.69E-7	1.11E-6	3.19E-5	2.55E-7	1.26E-6	2.86E-9	-4.04E-6	2.93E-5
ADP-f	MJ	2.85E+1	2.19E-1	6.02E-1	2.93E+1	1.51E-1	9.85E-1	8.72E-3	-1.49E+1	1.55E+1
WDP	m3 depriv.	5.62E-1	6.72E-4	2.13E-1	7.75E-1	4.65E-4	1.93E-2	3.99E-5	-3.01E-1	4.94E-1
PM	disease inc.	3.04E-8	1.29E-9	1.85E-9	3.36E-8	8.90E-10	5.21E-9	5.99E-11	-1.54E-8	2.43E-8
IR	kBq U-235 eq	1.98E-2	9.57E-4	5.61E-4	2.13E-2	6.62E-4	3.02E-3	4.06E-5	-9.52E-3	1.55E-2
ETP-fw	CTUe	9.59E+0	1.78E-1	9.49E-1	1.07E+1	1.23E-1	1.21E+0	7.86E-3	-4.86E+0	7.20E+0
HTP-c	CTUh	2.40E-10	6.33E-12	5.06E-11	2.96E-10	4.38E-12	1.32E-10	2.11E-13	-1.24E-10	3.09E-10
HTP-nc	CTUh	5.95E-9	2.12E-10	1.05E-9	7.21E-9	1.47E-10	1.67E-9	4.82E-12	-3.09E-9	5.95E-9
SQP	Pt	8.82E+0	1.87E-1	1.10E-1	9.11E+0	1.30E-1	7.76E-1	2.24E-2	-1.22E+1	-2.11E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.62E+0	3.14E-3	2.08E+0	3.71E+0	2.17E-3	4.79E-2	3.43E-4	-2.15E+0	1.61E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.62E+0	3.14E-3	2.08E+0	3.71E+0	2.17E-3	4.79E-2	3.43E-4	-2.15E+0	1.61E+0
PENRE	MJ	3.05E+1	2.33E-1	6.56E-1	3.14E+1	1.61E-1	1.05E+0	9.25E-3	-1.61E+1	1.66E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	3.05E+1	2.33E-1	6.56E-1	3.14E+1	1.61E-1	1.05E+0	9.25E-3	-1.61E+1	1.66E+1
PET	MJ	3.22E+1	2.36E-1	2.74E+0	3.51E+1	1.63E-1	1.10E+0	9.59E-3	-1.82E+1	1.82E+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	9.02E-3	2.48E-5	5.06E-3	1.41E-2	1.71E-5	6.23E-4	1.08E-5	-5.15E-3	9.61E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	5.03E-6	5.60E-7	5.85E-7	6.18E-6	3.87E-7	1.67E-6	1.05E-8	-4.52E-6	3.73E-6
NHWD	kg	4.20E-2	1.36E-2	5.70E-3	6.13E-2	9.38E-3	4.90E-2	3.84E-2	-1.68E-2	1.41E-1
RWD	kg	1.98E-5	1.49E-6	6.24E-7	2.19E-5	1.03E-6	3.86E-6	5.70E-8	-8.93E-6	1.79E-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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