

Environmental Profile

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

Ecochain v3.5.64



Product: 3067723 - SiTech+ Bend STB 30° 160
 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	1.83E+0	2.77E-2	1.33E-1	1.99E+0	2.40E-2	1.05E+0	1.15E-2	-1.12E+0	1.96E+0
GWP-f	kg CO2 eq	2.02E+0	2.76E-2	1.13E-1	2.16E+0	2.39E-2	8.16E-1	1.15E-2	-1.21E+0	1.80E+0
GWP-b	kg CO2 eq	-1.84E-1	1.68E-5	9.58E-3	-1.75E-1	1.45E-5	2.30E-1	1.01E-5	8.72E-2	1.43E-1
GWP-luluc	kg CO2 eq	1.16E-3	9.78E-6	9.57E-3	1.07E-2	8.47E-6	1.35E-4	1.95E-7	-9.37E-4	9.95E-3
ODP	kg CFC11 eq	7.61E-8	6.37E-9	1.14E-8	9.38E-8	5.51E-9	1.88E-8	2.90E-10	-5.58E-8	6.26E-8
AP	mol H+ eq	7.62E-3	1.57E-4	4.57E-4	8.23E-3	1.36E-4	7.87E-4	6.92E-6	-3.69E-3	5.48E-3
EP-fw	kg P eq	3.69E-5	2.27E-7	1.76E-6	3.89E-5	1.97E-7	3.92E-6	8.97E-9	-2.12E-5	2.19E-5
EP-m	kg N eq	1.36E-3	5.63E-5	7.73E-5	1.49E-3	4.88E-5	2.35E-4	5.01E-6	-6.95E-4	1.09E-3
EP-T	mol N eq	1.51E-2	6.21E-4	8.68E-4	1.66E-2	5.37E-4	2.58E-3	2.81E-5	-7.78E-3	1.19E-2
POCP	kg NMVOC eq	6.61E-3	1.77E-4	2.70E-4	7.06E-3	1.54E-4	8.07E-4	1.05E-5	-3.27E-3	4.76E-3
ADP-mm	kg Sb eq	7.70E-5	7.15E-7	2.76E-6	8.05E-5	6.19E-7	3.07E-6	6.95E-9	-9.92E-6	7.42E-5
ADP-f	MJ	6.92E+1	4.24E-1	1.49E+0	7.12E+1	3.67E-1	2.39E+0	2.12E-2	-3.63E+1	3.77E+1
WDP	m3 depriv.	1.37E+0	1.30E-3	5.28E-1	1.90E+0	1.13E-3	4.69E-2	9.70E-5	-7.31E-1	1.21E+0
PM	disease inc.	7.47E-8	2.49E-9	4.58E-9	8.18E-8	2.16E-9	1.27E-8	1.46E-10	-3.77E-8	5.90E-8
IR	kBq U-235 eq	4.89E-2	1.85E-3	1.39E-3	5.22E-2	1.61E-3	7.34E-3	9.86E-5	-2.33E-2	3.79E-2
ETP-fw	CTUe	2.37E+1	3.44E-1	2.35E+0	2.64E+1	2.98E-1	2.96E+0	1.92E-2	-1.20E+1	1.77E+1
HTP-c	CTUh	5.92E-10	1.23E-11	1.26E-10	7.30E-10	1.06E-11	3.21E-10	5.13E-13	-3.07E-10	7.55E-10
HTP-nc	CTUh	1.46E-8	4.11E-10	2.60E-9	1.76E-8	3.56E-10	4.06E-9	1.17E-11	-7.56E-9	1.45E-8
SQP	Pt	2.26E+1	3.63E-1	2.72E-1	2.32E+1	3.14E-1	1.88E+0	5.44E-2	-3.07E+1	-5.22E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	4.12E+0	6.09E-3	5.16E+0	9.29E+0	5.27E-3	1.16E-1	8.34E-4	-5.40E+0	4.01E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	4.12E+0	6.09E-3	5.16E+0	9.29E+0	5.27E-3	1.16E-1	8.34E-4	-5.40E+0	4.01E+0
PENRE	MJ	7.43E+1	4.50E-1	1.63E+0	7.64E+1	3.90E-1	2.55E+0	2.25E-2	-3.91E+1	4.02E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	7.43E+1	4.50E-1	1.63E+0	7.64E+1	3.90E-1	2.55E+0	2.25E-2	-3.91E+1	4.02E+1
PET	MJ	7.84E+1	4.56E-1	6.79E+0	8.56E+1	3.95E-1	2.66E+0	2.33E-2	-4.45E+1	4.42E+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	2.20E-2	4.80E-5	1.25E-2	3.46E-2	4.16E-5	1.52E-3	2.62E-5	-1.26E-2	2.36E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.25E-5	1.08E-6	1.45E-6	1.50E-5	9.39E-7	4.06E-6	2.54E-8	-1.11E-5	8.94E-6
NHWD	kg	1.04E-1	2.63E-2	1.41E-2	1.44E-1	2.28E-2	1.19E-1	9.34E-2	-4.14E-2	3.38E-1
RWD	kg	4.91E-5	2.89E-6	1.55E-6	5.35E-5	2.50E-6	9.37E-6	1.39E-7	-2.19E-5	4.36E-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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