

Environmental Profile

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

Ecochain v3.5.64



Product: 3067744 - SiTech+ Bend STB 87,5° 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	9.68E-1	1.77E-2	7.15E-2	1.06E+0	1.28E-2	5.43E-1	6.15E-3	-5.99E-1	1.02E+0
GWP-f	kg CO2 eq	1.07E+0	1.77E-2	6.11E-2	1.15E+0	1.28E-2	4.21E-1	6.15E-3	-6.42E-1	9.43E-1
GWP-b	kg CO2 eq	-9.89E-2	1.07E-5	5.16E-3	-9.37E-2	7.80E-6	1.22E-1	5.39E-6	4.34E-2	7.21E-2
GWP-luluc	kg CO2 eq	5.89E-4	6.25E-6	5.16E-3	5.76E-3	4.54E-6	7.25E-5	1.04E-7	-4.80E-4	5.35E-3
ODP	kg CFC11 eq	3.57E-8	4.07E-9	6.13E-9	4.59E-8	2.96E-9	1.01E-8	1.55E-10	-2.89E-8	3.02E-8
AP	mol H+ eq	3.98E-3	1.01E-4	2.47E-4	4.33E-3	7.31E-5	4.20E-4	3.69E-6	-1.97E-3	2.86E-3
EP-fw	kg P eq	1.90E-5	1.45E-7	9.50E-7	2.01E-5	1.06E-7	2.11E-6	4.78E-9	-1.11E-5	1.13E-5
EP-m	kg N eq	7.10E-4	3.60E-5	4.17E-5	7.88E-4	2.62E-5	1.25E-4	2.60E-6	-3.69E-4	5.72E-4
EP-T	mol N eq	7.87E-3	3.97E-4	4.68E-4	8.74E-3	2.88E-4	1.38E-3	1.50E-5	-4.13E-3	6.29E-3
POCP	kg NMVOC eq	3.46E-3	1.13E-4	1.45E-4	3.72E-3	8.24E-5	4.31E-4	5.62E-6	-1.75E-3	2.49E-3
ADP-mm	kg Sb eq	3.36E-5	4.57E-7	1.49E-6	3.56E-5	3.32E-7	1.65E-6	3.70E-9	-5.07E-6	3.25E-5
ADP-f	MJ	3.68E+1	2.71E-1	8.05E-1	3.79E+1	1.97E-1	1.29E+0	1.13E-2	-1.94E+1	1.99E+1
WDP	m3 depriv.	7.25E-1	8.32E-4	2.85E-1	1.01E+0	6.05E-4	2.51E-2	5.17E-5	-3.89E-1	6.47E-1
PM	disease inc.	3.86E-8	1.60E-9	2.47E-9	4.27E-8	1.16E-9	6.79E-9	7.75E-11	-2.00E-8	3.08E-8
IR	kBq U-235 eq	2.45E-2	1.19E-3	7.51E-4	2.64E-2	8.61E-4	3.94E-3	5.25E-5	-1.23E-2	1.90E-2
ETP-fw	CTUe	1.19E+1	2.20E-1	1.27E+0	1.34E+1	1.60E-1	1.56E+0	1.00E-2	-6.17E+0	8.95E+0
HTP-c	CTUh	3.07E-10	7.84E-12	6.77E-11	3.83E-10	5.69E-12	1.73E-10	2.73E-13	-1.63E-10	3.99E-10
HTP-nc	CTUh	7.58E-9	2.63E-10	1.40E-9	9.24E-9	1.91E-10	2.17E-9	6.19E-12	-4.00E-9	7.62E-9
SQP	Pt	1.19E+1	2.32E-1	1.47E-1	1.23E+1	1.69E-1	1.01E+0	2.90E-2	-1.59E+1	-2.40E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	2.17E+0	3.89E-3	2.78E+0	4.96E+0	2.83E-3	6.25E-2	4.43E-4	-2.79E+0	2.23E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	2.17E+0	3.89E-3	2.78E+0	4.96E+0	2.83E-3	6.25E-2	4.43E-4	-2.79E+0	2.23E+0
PENRE	MJ	3.95E+1	2.88E-1	8.78E-1	4.06E+1	2.09E-1	1.37E+0	1.20E-2	-2.09E+1	2.13E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	3.95E+1	2.88E-1	8.78E-1	4.06E+1	2.09E-1	1.37E+0	1.20E-2	-2.09E+1	2.13E+1
PET	MJ	4.17E+1	2.92E-1	3.66E+0	4.56E+1	2.12E-1	1.43E+0	1.24E-2	-2.37E+1	2.35E+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	1.15E-2	3.07E-5	6.76E-3	1.83E-2	2.23E-5	7.95E-4	1.39E-5	-6.64E-3	1.25E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	6.33E-6	6.94E-7	7.82E-7	7.80E-6	5.04E-7	2.17E-6	1.35E-8	-5.79E-6	4.70E-6
NHWD	kg	5.34E-2	1.68E-2	7.62E-3	7.79E-2	1.22E-2	6.36E-2	4.98E-2	-2.20E-2	1.81E-1
RWD	kg	2.39E-5	1.84E-6	8.35E-7	2.66E-5	1.34E-6	5.03E-6	7.38E-8	-1.15E-5	2.16E-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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