

Environmental Profile

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

Ecochain v3.5.64



Product: 3067722 - SiTech+ Bend STB 30° 125
Unit: 1 piece
Manufacturer: Wavin - IT - SM Maddalena

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.

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



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					Use stage							End-of-Life stage				
A1 Raw material supply A2 Transport A3 Manufacturing					B1 Use B2 Maintenance B3 Repair B4 Replacement B5 Refurbishment B6 Operational energy use B7 Operational water use							C1 De-construction demolition C2 Transport C3 Waste processing C4 Disposal				
Construction process stage												Benefits and loads beyond the system boundaries				
A4 Transport gate to site A5 Assembly / Construction installation process												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	1.03E+0	1.54E-2	7.46E-2	1.12E+0	1.35E-2	5.82E-1	6.49E-3	-6.32E-1	1.09E+0
GWP-f	kg CO2 eq	1.13E+0	1.53E-2	6.38E-2	1.21E+0	1.35E-2	4.60E-1	6.49E-3	-6.75E-1	1.01E+0
GWP-b	kg CO2 eq	-9.92E-2	9.32E-6	5.39E-3	-9.38E-2	8.17E-6	1.22E-1	5.70E-6	4.34E-2	7.20E-2
GWP-luluc	kg CO2 eq	6.19E-4	5.43E-6	5.39E-3	6.01E-3	4.76E-6	7.55E-5	1.10E-7	-4.85E-4	5.61E-3
ODP	kg CFC11 eq	4.23E-8	3.54E-9	6.40E-9	5.23E-8	3.10E-9	1.05E-8	1.63E-10	-3.10E-8	3.51E-8
AP	mol H+ eq	4.26E-3	8.74E-5	2.57E-4	4.60E-3	7.67E-5	4.40E-4	3.90E-6	-2.04E-3	3.08E-3
EP-fw	kg P eq	2.04E-5	1.26E-7	9.92E-7	2.15E-5	1.11E-7	2.20E-6	5.05E-9	-1.14E-5	1.25E-5
EP-m	kg N eq	7.55E-4	3.13E-5	4.35E-5	8.30E-4	2.74E-5	1.31E-4	2.82E-6	-3.84E-4	6.07E-4
EP-T	mol N eq	8.38E-3	3.45E-4	4.89E-4	9.22E-3	3.02E-4	1.44E-3	1.58E-5	-4.29E-3	6.69E-3
POCP	kg NMVOC eq	3.70E-3	9.85E-5	1.52E-4	3.95E-3	8.64E-5	4.50E-4	5.93E-6	-1.82E-3	2.67E-3
ADP-mm	kg Sb eq	4.37E-5	3.97E-7	1.55E-6	4.56E-5	3.48E-7	1.71E-6	3.91E-9	-5.55E-6	4.22E-5
ADP-f	MJ	3.89E+1	2.36E-1	8.40E-1	4.00E+1	2.07E-1	1.34E+0	1.19E-2	-2.03E+1	2.12E+1
WDP	m3 depriv.	7.67E-1	7.23E-4	2.97E-1	1.07E+0	6.34E-4	2.64E-2	5.46E-5	-4.03E-1	6.89E-1
PM	disease inc.	4.16E-8	1.39E-9	2.58E-9	4.55E-8	1.22E-9	7.07E-9	8.19E-11	-2.06E-8	3.33E-8
IR	kBq U-235 eq	2.73E-2	1.03E-3	7.84E-4	2.92E-2	9.03E-4	4.10E-3	5.55E-5	-1.27E-2	2.15E-2
ETP-fw	CTUe	1.26E+1	1.91E-1	1.33E+0	1.41E+1	1.68E-1	1.65E+0	1.08E-2	-6.28E+0	9.70E+0
HTP-c	CTUh	3.29E-10	6.81E-12	7.07E-11	4.06E-10	5.97E-12	1.80E-10	2.89E-13	-1.68E-10	4.25E-10
HTP-nc	CTUh	8.13E-9	2.28E-10	1.47E-9	9.83E-9	2.00E-10	2.27E-9	6.60E-12	-4.13E-9	8.18E-9
SQP	Pt	1.21E+1	2.02E-1	1.53E-1	1.25E+1	1.77E-1	1.06E+0	3.06E-2	-1.59E+1	-2.21E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	2.21E+0	3.38E-3	2.91E+0	5.12E+0	2.96E-3	6.51E-2	4.69E-4	-2.80E+0	2.39E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	2.21E+0	3.38E-3	2.91E+0	5.12E+0	2.96E-3	6.51E-2	4.69E-4	-2.80E+0	2.39E+0
PENRE	MJ	4.17E+1	2.50E-1	9.16E-1	4.29E+1	2.19E-1	1.43E+0	1.26E-2	-2.19E+1	2.26E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	4.17E+1	2.50E-1	9.16E-1	4.29E+1	2.19E-1	1.43E+0	1.26E-2	-2.19E+1	2.26E+1
PET	MJ	4.39E+1	2.53E-1	3.82E+0	4.80E+1	2.22E-1	1.49E+0	1.31E-2	-2.47E+1	2.50E+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	1.23E-2	2.67E-5	7.06E-3	1.94E-2	2.34E-5	8.55E-4	1.47E-5	-6.85E-3	1.35E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	6.90E-6	6.02E-7	8.16E-7	8.32E-6	5.28E-7	2.27E-6	1.43E-8	-6.15E-6	4.98E-6
NHWD	kg	5.73E-2	1.46E-2	7.96E-3	7.99E-2	1.28E-2	6.67E-2	5.26E-2	-2.27E-2	1.89E-1
RWD	kg	2.75E-5	1.60E-6	8.71E-7	2.99E-5	1.41E-6	5.23E-6	7.80E-8	-1.19E-5	2.47E-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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