

Environmental Profile

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

Ecochain v3.5.64



Product: 3067714 - SiTech+ Bend STB 15° 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	9.51E-1	1.44E-2	6.86E-2	1.03E+0	1.24E-2	5.52E-1	5.99E-3	-5.83E-1	1.02E+0
GWP-f	kg CO2 eq	1.05E+0	1.44E-2	5.87E-2	1.12E+0	1.24E-2	4.29E-1	5.99E-3	-6.27E-1	9.44E-1
GWP-b	kg CO2 eq	-9.96E-2	8.72E-6	4.96E-3	-9.46E-2	7.53E-6	1.22E-1	5.27E-6	4.35E-2	7.14E-2
GWP-luluc	kg CO2 eq	5.99E-4	5.08E-6	4.95E-3	5.56E-3	4.39E-6	6.96E-5	1.01E-7	-4.76E-4	5.16E-3
ODP	kg CFC11 eq	4.10E-8	3.31E-9	5.89E-9	5.02E-8	2.86E-9	9.71E-9	1.51E-10	-2.91E-8	3.38E-8
AP	mol H+ eq	3.98E-3	8.18E-5	2.37E-4	4.30E-3	7.07E-5	4.07E-4	3.60E-6	-1.90E-3	2.87E-3
EP-fw	kg P eq	1.93E-5	1.18E-7	9.12E-7	2.03E-5	1.02E-7	2.03E-6	4.67E-9	-1.08E-5	1.16E-5
EP-m	kg N eq	7.08E-4	2.93E-5	4.00E-5	7.77E-4	2.53E-5	1.22E-4	2.63E-6	-3.59E-4	5.68E-4
EP-T	mol N eq	7.86E-3	3.22E-4	4.49E-4	8.63E-3	2.79E-4	1.34E-3	1.46E-5	-4.02E-3	6.24E-3
POCP	kg NMVOC eq	3.45E-3	9.22E-5	1.40E-4	3.68E-3	7.97E-5	4.18E-4	5.48E-6	-1.70E-3	2.49E-3
ADP-mm	kg Sb eq	4.26E-5	3.71E-7	1.43E-6	4.44E-5	3.21E-7	1.59E-6	3.61E-9	-5.22E-6	4.11E-5
ADP-f	MJ	3.60E+1	2.20E-1	7.72E-1	3.70E+1	1.90E-1	1.24E+0	1.10E-2	-1.88E+1	1.96E+1
WDP	m3 depriv.	7.11E-1	6.76E-4	2.73E-1	9.85E-1	5.84E-4	2.44E-2	5.04E-5	-3.76E-1	6.34E-1
PM	disease inc.	3.91E-8	1.30E-9	2.37E-9	4.28E-8	1.12E-9	6.54E-9	7.57E-11	-1.94E-8	3.11E-8
IR	kBq U-235 eq	2.59E-2	9.63E-4	7.20E-4	2.76E-2	8.32E-4	3.79E-3	5.13E-5	-1.20E-2	2.03E-2
ETP-fw	CTUe	1.22E+1	1.79E-1	1.22E+0	1.36E+1	1.55E-1	1.54E+0	1.00E-2	-6.09E+0	9.25E+0
HTP-c	CTUh	3.11E-10	6.37E-12	6.50E-11	3.82E-10	5.50E-12	1.66E-10	2.67E-13	-1.59E-10	3.95E-10
HTP-nc	CTUh	7.64E-9	2.13E-10	1.35E-9	9.20E-9	1.84E-10	2.10E-9	6.11E-12	-3.90E-9	7.60E-9
SQP	Pt	1.20E+1	1.89E-1	1.41E-1	1.23E+1	1.63E-1	9.74E-1	2.83E-2	-1.59E+1	-2.38E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	2.17E+0	3.16E-3	2.67E+0	4.85E+0	2.73E-3	6.00E-2	4.34E-4	-2.78E+0	2.13E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	2.17E+0	3.16E-3	2.67E+0	4.85E+0	2.73E-3	6.00E-2	4.34E-4	-2.78E+0	2.13E+0
PENRE	MJ	3.86E+1	2.34E-1	8.42E-1	3.97E+1	2.02E-1	1.32E+0	1.17E-2	-2.03E+1	2.10E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	3.86E+1	2.34E-1	8.42E-1	3.97E+1	2.02E-1	1.32E+0	1.17E-2	-2.03E+1	2.10E+1
PET	MJ	4.08E+1	2.37E-1	3.51E+0	4.45E+1	2.05E-1	1.38E+0	1.21E-2	-2.30E+1	2.31E+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	2.49E-5	6.49E-3	1.80E-2	2.16E-5	7.96E-4	1.36E-5	-6.45E-3	1.24E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	6.57E-6	5.64E-7	7.50E-7	7.89E-6	4.87E-7	2.10E-6	1.32E-8	-5.80E-6	4.69E-6
NHWD	kg	5.43E-2	1.37E-2	7.32E-3	7.53E-2	1.18E-2	6.16E-2	4.86E-2	-2.15E-2	1.76E-1
RWD	kg	2.62E-5	1.50E-6	8.01E-7	2.85E-5	1.30E-6	4.84E-6	7.20E-8	-1.13E-5	2.34E-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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