

Environmental Profile

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

Ecochain v3.5.64



Product: 3067734 - SiTech+ Bend STB 67,5° 50
 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

This document and supporting material contain confidential and proprietary business information of Wavin - IT - SM Maddalena. These materials may be printed or (photo) copied or otherwise used only with the written consent of Wavin - IT - SM Maddalena.

Results

Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	1.38E-1	3.48E-3	9.91E-3	1.52E-1	1.83E-3	1.05E-1	8.99E-4	-8.69E-2	1.72E-1
GWP-f	kg CO2 eq	1.67E-1	3.48E-3	8.47E-3	1.79E-1	1.83E-3	7.04E-2	8.99E-4	-9.85E-2	1.54E-1
GWP-b	kg CO2 eq	-2.90E-2	2.11E-6	7.16E-4	-2.83E-2	1.11E-6	3.46E-2	7.95E-7	1.17E-2	1.81E-2
GWP-luluc	kg CO2 eq	1.31E-4	1.23E-6	7.16E-4	8.48E-4	6.48E-7	1.03E-5	1.53E-8	-1.14E-4	7.45E-4
ODP	kg CFC11 eq	8.80E-9	8.02E-10	8.50E-10	1.05E-8	4.22E-10	1.51E-9	2.27E-11	-5.21E-9	7.21E-9
AP	mol H+ eq	6.63E-4	1.98E-5	3.42E-5	7.17E-4	1.04E-5	6.34E-5	5.43E-7	-3.17E-4	4.74E-4
EP-fw	kg P eq	3.50E-6	2.86E-8	1.32E-7	3.66E-6	1.51E-8	3.02E-7	7.04E-10	-2.14E-6	1.84E-6
EP-m	kg N eq	1.23E-4	7.09E-6	5.77E-6	1.36E-4	3.73E-6	1.92E-5	4.23E-7	-6.22E-5	9.69E-5
EP-T	mol N eq	1.35E-3	7.82E-5	6.49E-5	1.49E-3	4.11E-5	2.12E-4	2.20E-6	-7.00E-4	1.05E-3
POCP	kg NMVOC eq	5.72E-4	2.23E-5	2.02E-5	6.15E-4	1.18E-5	6.56E-5	8.24E-7	-2.80E-4	4.13E-4
ADP-mm	kg Sb eq	9.40E-6	9.00E-8	2.06E-7	9.70E-6	4.74E-8	2.44E-7	5.44E-10	-9.28E-7	9.06E-6
ADP-f	MJ	5.54E+0	5.34E-2	1.12E-1	5.71E+0	2.81E-2	1.86E-1	1.66E-3	-2.86E+0	3.07E+0
WDP	m3 depriv.	1.10E-1	1.64E-4	3.95E-2	1.50E-1	8.63E-5	3.67E-3	7.60E-6	-6.29E-2	9.07E-2
PM	disease inc.	6.94E-9	3.14E-10	3.42E-10	7.60E-9	1.65E-10	1.00E-9	1.14E-11	-3.61E-9	5.17E-9
IR	kBq U-235 eq	4.80E-3	2.33E-4	1.04E-4	5.14E-3	1.23E-4	5.80E-4	7.73E-6	-2.20E-3	3.65E-3
ETP-fw	CTUe	2.68E+0	4.34E-2	1.76E-1	2.90E+0	2.28E-2	2.46E-1	1.59E-3	-1.36E+0	1.81E+0
HTP-c	CTUh	5.83E-11	1.54E-12	9.38E-12	6.92E-11	8.12E-13	2.51E-11	4.03E-14	-3.17E-11	6.34E-11
HTP-nc	CTUh	1.33E-9	5.17E-11	1.95E-10	1.58E-9	2.72E-11	3.20E-10	9.41E-13	-7.20E-10	1.21E-9
SQP	Pt	3.22E+0	4.57E-2	2.03E-2	3.28E+0	2.41E-2	1.45E-1	4.26E-3	-4.30E+0	-8.40E-1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	5.45E-1	7.66E-4	3.86E-1	9.32E-1	4.03E-4	8.94E-3	6.58E-5	-7.33E-1	2.08E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	5.45E-1	7.66E-4	3.86E-1	9.32E-1	4.03E-4	8.94E-3	6.58E-5	-7.33E-1	2.08E-1
PENRE	MJ	5.94E+0	5.67E-2	1.22E-1	6.12E+0	2.99E-2	1.98E-1	1.76E-3	-3.08E+0	3.27E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	5.94E+0	5.67E-2	1.22E-1	6.12E+0	2.99E-2	1.98E-1	1.76E-3	-3.08E+0	3.27E+0
PET	MJ	6.49E+0	5.75E-2	5.08E-1	7.05E+0	3.03E-2	2.07E-1	1.83E-3	-3.81E+0	3.48E+0
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	1.88E-3	6.05E-6	9.37E-4	2.83E-3	3.18E-6	1.28E-4	2.05E-6	-1.16E-3	1.80E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.28E-6	1.37E-7	1.08E-7	1.53E-6	7.19E-8	3.27E-7	1.99E-9	-1.05E-6	8.80E-7
NHWD	kg	1.02E-2	3.31E-3	1.06E-3	1.46E-2	1.74E-3	9.39E-3	7.31E-3	-4.13E-3	2.89E-2
RWD	kg	5.13E-6	3.63E-7	1.16E-7	5.60E-6	1.91E-7	7.44E-7	1.08E-8	-2.12E-6	4.43E-6
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



Ecochain Technologies BV
H.J.E. Wenckebachweg 123, 1096 AM Amsterdam, The Netherlands
<https://www.ecochain.com>
+31 20 3035 777