

Environmental Profile

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

Ecochain v3.5.64



Product: 3067834 - SiTech+ Branch STEA 87,5° 110X90 Swept
 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	1.22E+0	2.57E-2	8.99E-2	1.34E+0	1.63E-2	7.89E-1	7.84E-3	-7.56E-1	1.39E+0
GWP-f	kg CO2 eq	1.41E+0	2.56E-2	7.69E-2	1.51E+0	1.63E-2	5.59E-1	7.84E-3	-8.44E-1	1.25E+0
GWP-b	kg CO2 eq	-1.86E-1	1.56E-5	6.50E-3	-1.80E-1	9.87E-6	2.30E-1	6.89E-6	8.84E-2	1.39E-1
GWP-luluc	kg CO2 eq	9.84E-4	9.07E-6	6.49E-3	7.49E-3	5.75E-6	9.23E-5	1.32E-7	-8.69E-4	6.72E-3
ODP	kg CFC11 eq	5.67E-8	5.91E-9	7.72E-9	7.04E-8	3.75E-9	1.32E-8	1.97E-10	-4.10E-8	4.65E-8
AP	mol H+ eq	5.39E-3	1.46E-4	3.10E-4	5.84E-3	9.26E-5	5.51E-4	4.71E-6	-2.69E-3	3.80E-3
EP-fw	kg P eq	2.74E-5	2.11E-7	1.20E-6	2.88E-5	1.34E-7	2.70E-6	6.10E-9	-1.73E-5	1.43E-5
EP-m	kg N eq	9.91E-4	5.22E-5	5.24E-5	1.10E-3	3.31E-5	1.66E-4	3.41E-6	-5.18E-4	7.79E-4
EP-T	mol N eq	1.09E-2	5.76E-4	5.89E-4	1.21E-2	3.65E-4	1.82E-3	1.91E-5	-5.82E-3	8.45E-3
POCP	kg NMVOC eq	4.67E-3	1.65E-4	1.83E-4	5.02E-3	1.04E-4	5.68E-4	7.16E-6	-2.38E-3	3.32E-3
ADP-mm	kg Sb eq	5.36E-5	6.63E-7	1.87E-6	5.61E-5	4.20E-7	2.15E-6	4.72E-9	-7.09E-6	5.16E-5
ADP-f	MJ	4.76E+1	3.94E-1	1.01E+0	4.90E+1	2.49E-1	1.65E+0	1.44E-2	-2.50E+1	2.59E+1
WDP	m3 depriv.	9.41E-1	1.21E-3	3.58E-1	1.30E+0	7.66E-4	3.21E-2	6.59E-5	-5.40E-1	7.93E-1
PM	disease inc.	5.43E-8	2.31E-9	3.11E-9	5.98E-8	1.47E-9	8.83E-9	9.89E-11	-2.95E-8	4.07E-8
IR	kBq U-235 eq	3.51E-2	1.72E-3	9.44E-4	3.78E-2	1.09E-3	5.12E-3	6.70E-5	-1.80E-2	2.60E-2
ETP-fw	CTUe	2.00E+1	3.20E-1	1.60E+0	2.19E+1	2.03E-1	2.07E+0	1.30E-2	-1.06E+1	1.36E+1
HTP-c	CTUh	4.44E-10	1.14E-11	8.52E-11	5.41E-10	7.21E-12	2.23E-10	3.49E-13	-2.47E-10	5.24E-10
HTP-nc	CTUh	1.05E-8	3.81E-10	1.77E-9	1.27E-8	2.41E-10	2.81E-9	7.97E-12	-5.89E-9	9.86E-9
SQP	Pt	2.16E+1	3.37E-1	1.84E-1	2.22E+1	2.13E-1	1.30E+0	3.70E-2	-3.04E+1	-6.66E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	3.78E+0	5.65E-3	3.50E+0	7.29E+0	3.58E-3	7.97E-2	5.67E-4	-5.26E+0	2.12E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	3.78E+0	5.65E-3	3.50E+0	7.29E+0	3.58E-3	7.97E-2	5.67E-4	-5.26E+0	2.12E+0
PENRE	MJ	5.11E+1	4.18E-1	1.10E+0	5.26E+1	2.65E-1	1.76E+0	1.53E-2	-2.70E+1	2.77E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	5.11E+1	4.18E-1	1.10E+0	5.26E+1	2.65E-1	1.76E+0	1.53E-2	-2.70E+1	2.77E+1
PET	MJ	5.49E+1	4.23E-1	4.61E+0	5.99E+1	2.68E-1	1.84E+0	1.58E-2	-3.22E+1	2.98E+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	1.54E-2	4.45E-5	8.51E-3	2.40E-2	2.82E-5	1.05E-3	1.78E-5	-9.69E-3	1.54E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	9.45E-6	1.01E-6	9.84E-7	1.14E-5	6.38E-7	2.84E-6	1.73E-8	-8.24E-6	6.69E-6
NHWD	kg	7.85E-2	2.44E-2	9.59E-3	1.12E-1	1.55E-2	8.22E-2	6.35E-2	-3.28E-2	2.41E-1
RWD	kg	3.54E-5	2.68E-6	1.05E-6	3.92E-5	1.70E-6	6.56E-6	9.41E-8	-1.70E-5	3.05E-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



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