

Environmental Profile

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

Ecochain v3.5.64



Product: 3067769 - SiTech+ Branch Reduced STEA 67,5° 110X50
 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	8.75E-1	1.77E-2	6.24E-2	9.55E-1	1.13E-2	5.21E-1	5.47E-3	-5.27E-1	9.66E-1
GWP-f	kg CO2 eq	9.74E-1	1.77E-2	5.34E-2	1.05E+0	1.13E-2	3.94E-1	5.47E-3	-5.81E-1	8.75E-1
GWP-b	kg CO2 eq	-9.97E-2	1.07E-5	4.51E-3	-9.51E-2	6.88E-6	1.27E-1	4.81E-6	5.46E-2	8.68E-2
GWP-luluc	kg CO2 eq	6.35E-4	6.25E-6	4.51E-3	5.15E-3	4.01E-6	6.39E-5	9.25E-8	-5.42E-4	4.68E-3
ODP	kg CFC11 eq	3.96E-8	4.07E-9	5.36E-9	4.91E-8	2.61E-9	9.08E-9	1.38E-10	-2.79E-8	3.30E-8
AP	mol H+ eq	3.72E-3	1.01E-4	2.15E-4	4.04E-3	6.45E-5	3.79E-4	3.29E-6	-1.82E-3	2.67E-3
EP-fw	kg P eq	1.86E-5	1.45E-7	8.30E-7	1.96E-5	9.32E-8	1.87E-6	4.26E-9	-1.12E-5	1.03E-5
EP-m	kg N eq	6.75E-4	3.60E-5	3.64E-5	7.47E-4	2.31E-5	1.14E-4	2.40E-6	-3.46E-4	5.40E-4
EP-T	mol N eq	7.45E-3	3.97E-4	4.09E-4	8.25E-3	2.54E-4	1.25E-3	1.34E-5	-3.88E-3	5.89E-3
POCP	kg NMVOC eq	3.22E-3	1.13E-4	1.27E-4	3.46E-3	7.27E-5	3.91E-4	5.00E-6	-1.60E-3	2.32E-3
ADP-mm	kg Sb eq	3.96E-5	4.57E-7	1.30E-6	4.13E-5	2.93E-7	1.48E-6	3.30E-9	-4.90E-6	3.82E-5
ADP-f	MJ	3.31E+1	2.71E-1	7.03E-1	3.41E+1	1.74E-1	1.14E+0	1.01E-2	-1.73E+1	1.81E+1
WDP	m3 depriv.	6.55E-1	8.32E-4	2.49E-1	9.04E-1	5.34E-4	2.23E-2	4.61E-5	-3.65E-1	5.62E-1
PM	disease inc.	3.71E-8	1.59E-9	2.16E-9	4.08E-8	1.02E-9	6.08E-9	6.91E-11	-1.93E-8	2.87E-8
IR	kBq U-235 eq	2.45E-2	1.19E-3	6.56E-4	2.63E-2	7.60E-4	3.52E-3	4.68E-5	-1.19E-2	1.87E-2
ETP-fw	CTUe	1.31E+1	2.20E-1	1.11E+0	1.44E+1	1.41E-1	1.43E+0	9.18E-3	-6.72E+0	9.27E+0
HTP-c	CTUh	2.96E-10	7.84E-12	5.91E-11	3.63E-10	5.02E-12	1.54E-10	2.44E-13	-1.57E-10	3.64E-10
HTP-nc	CTUh	7.22E-9	2.63E-10	1.23E-9	8.71E-9	1.68E-10	1.94E-9	5.59E-12	-3.88E-9	6.95E-9
SQP	Pt	1.23E+1	2.32E-1	1.28E-1	1.27E+1	1.49E-1	8.97E-1	2.58E-2	-1.78E+1	-4.05E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	2.22E+0	3.89E-3	2.43E+0	4.65E+0	2.49E-3	5.52E-2	3.97E-4	-3.12E+0	1.59E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	2.22E+0	3.89E-3	2.43E+0	4.65E+0	2.49E-3	5.52E-2	3.97E-4	-3.12E+0	1.59E+0
PENRE	MJ	3.55E+1	2.88E-1	7.67E-1	3.66E+1	1.85E-1	1.22E+0	1.07E-2	-1.87E+1	1.93E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	3.55E+1	2.88E-1	7.67E-1	3.66E+1	1.85E-1	1.22E+0	1.07E-2	-1.87E+1	1.93E+1
PET	MJ	3.77E+1	2.92E-1	3.20E+0	4.12E+1	1.87E-1	1.27E+0	1.11E-2	-2.18E+1	2.09E+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	1.07E-2	3.07E-5	5.91E-3	1.66E-2	1.97E-5	7.33E-4	1.24E-5	-6.45E-3	1.10E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	6.35E-6	6.94E-7	6.83E-7	7.73E-6	4.45E-7	1.96E-6	1.21E-8	-5.54E-6	4.61E-6
NHWD	kg	5.26E-2	1.68E-2	6.66E-3	7.61E-2	1.08E-2	5.69E-2	4.43E-2	-2.11E-2	1.67E-1
RWD	kg	2.48E-5	1.84E-6	7.29E-7	2.74E-5	1.18E-6	4.51E-6	6.58E-8	-1.13E-5	2.19E-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