

Environmental Profile

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

Ecochain v3.5.64



Product: 3067798 - SiTech+ Coupler STMM 40 S/S
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

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	1.21E-1	3.64E-3	6.60E-3	1.32E-1	1.35E-3	8.73E-2	6.96E-4	-6.51E-2	1.56E-1
GWP-f	kg CO2 eq	1.36E-1	3.63E-3	5.65E-3	1.45E-1	1.35E-3	6.77E-2	6.96E-4	-7.61E-2	1.39E-1
GWP-b	kg CO2 eq	-1.47E-2	2.21E-6	4.77E-4	-1.43E-2	8.18E-7	1.96E-2	6.25E-7	1.11E-2	1.64E-2
GWP-luluc	kg CO2 eq	1.20E-4	1.29E-6	4.77E-4	5.98E-4	4.77E-7	7.25E-6	1.20E-8	-9.70E-5	5.09E-4
ODP	kg CFC11 eq	1.11E-8	8.37E-10	5.67E-10	1.25E-8	3.10E-10	1.12E-9	1.77E-11	-4.62E-9	9.30E-9
AP	mol H+ eq	5.77E-4	2.07E-5	2.28E-5	6.21E-4	7.67E-6	4.76E-5	4.26E-7	-2.34E-4	4.42E-4
EP-fw	kg P eq	3.22E-6	2.99E-8	8.78E-8	3.34E-6	1.11E-8	2.15E-7	5.54E-10	-1.72E-6	1.84E-6
EP-m	kg N eq	1.05E-4	7.40E-6	3.85E-6	1.17E-4	2.74E-6	1.48E-5	3.94E-7	-4.66E-5	8.80E-5
EP-T	mol N eq	1.16E-3	8.16E-5	4.33E-5	1.28E-3	3.02E-5	1.62E-4	1.72E-6	-5.25E-4	9.54E-4
POCP	kg NMVOC eq	4.87E-4	2.33E-5	1.34E-5	5.24E-4	8.65E-6	4.95E-5	6.43E-7	-2.04E-4	3.79E-4
ADP-mm	kg Sb eq	1.41E-5	9.40E-8	1.38E-7	1.43E-5	3.48E-8	1.76E-7	4.25E-10	-8.96E-7	1.36E-5
ADP-f	MJ	4.37E+0	5.58E-2	7.44E-2	4.50E+0	2.07E-2	1.33E-1	1.30E-3	-2.10E+0	2.55E+0
WDP	m3 depriv.	8.86E-2	1.71E-4	2.63E-2	1.15E-1	6.34E-5	2.77E-3	5.95E-6	-4.77E-2	7.02E-2
PM	disease inc.	6.25E-9	3.28E-10	2.28E-10	6.81E-9	1.22E-10	7.21E-10	8.90E-12	-2.71E-9	4.95E-9
IR	kBq U-235 eq	5.12E-3	2.44E-4	6.94E-5	5.43E-3	9.03E-5	4.17E-4	6.08E-6	-1.75E-3	4.19E-3
ETP-fw	CTUe	2.62E+0	4.53E-2	1.17E-1	2.78E+0	1.68E-2	2.06E-1	1.44E-3	-1.16E+0	1.85E+0
HTP-c	CTUh	4.94E-11	1.61E-12	6.26E-12	5.72E-11	5.97E-13	1.78E-11	3.19E-14	-2.23E-11	5.33E-11
HTP-nc	CTUh	1.19E-9	5.40E-11	1.30E-10	1.37E-9	2.00E-11	2.38E-10	7.82E-13	-5.49E-10	1.08E-9
SQP	Pt	1.98E+0	4.77E-2	1.35E-2	2.05E+0	1.77E-2	1.02E-1	3.32E-3	-3.10E+0	-9.35E-1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	3.55E-1	8.00E-4	2.57E-1	6.13E-1	2.97E-4	6.36E-3	5.25E-5	-5.43E-1	7.61E-2
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	3.55E-1	8.00E-4	2.57E-1	6.13E-1	2.97E-4	6.36E-3	5.25E-5	-5.43E-1	7.61E-2
PENRE	MJ	4.68E+0	5.92E-2	8.11E-2	4.83E+0	2.19E-2	1.42E-1	1.38E-3	-2.27E+0	2.72E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	4.68E+0	5.92E-2	8.11E-2	4.83E+0	2.19E-2	1.42E-1	1.38E-3	-2.27E+0	2.72E+0
PET	MJ	5.04E+0	6.00E-2	3.38E-1	5.44E+0	2.22E-2	1.48E-1	1.43E-3	-2.81E+0	2.80E+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	1.64E-3	6.31E-6	6.25E-4	2.27E-3	2.34E-6	1.14E-4	1.60E-6	-9.16E-4	1.47E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.23E-6	1.43E-7	7.23E-8	1.45E-6	5.29E-8	2.47E-7	1.56E-9	-8.84E-7	8.63E-7
NHWD	kg	9.17E-3	3.46E-3	7.04E-4	1.33E-2	1.28E-3	7.01E-3	5.71E-3	-2.94E-3	2.44E-2
RWD	kg	5.93E-6	3.79E-7	7.71E-8	6.39E-6	1.41E-7	5.36E-7	8.49E-9	-1.71E-6	5.36E-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