

Environmental Profile

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

Ecochain v3.5.64



Product: 3074207 - SiTech+ Pipe STD M 110 L=2 S/S
 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	☑	☑	☑	☑									

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

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Results

Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	3.69E+0	4.86E-1	4.07E-1	4.58E+0	9.08E-2	2.33E+0	2.48E-2	-2.43E+0	4.60E+0
GWP-f	kg CO2 eq	4.04E+0	4.85E-1	3.63E-1	4.89E+0	9.07E-2	1.96E+0	2.48E-2	-2.42E+0	4.55E+0
GWP-b	kg CO2 eq	-3.50E-1	2.95E-4	2.30E-2	-3.27E-1	5.51E-5	3.64E-1	2.32E-5	-8.48E-3	2.85E-2
GWP-luluc	kg CO2 eq	1.34E-3	1.72E-4	2.07E-2	2.22E-2	3.21E-5	5.09E-4	5.37E-7	-6.18E-4	2.21E-2
ODP	kg CFC11 eq	1.11E-7	1.12E-7	3.95E-8	2.63E-7	2.09E-8	6.72E-8	9.22E-10	-9.68E-8	2.55E-7
AP	mol H+ eq	1.51E-2	2.76E-3	1.22E-3	1.90E-2	5.17E-4	2.74E-3	2.08E-5	-7.00E-3	1.53E-2
EP-fw	kg P eq	6.55E-5	3.99E-6	4.85E-6	7.43E-5	7.46E-7	1.47E-5	2.36E-8	-2.90E-5	6.08E-5
EP-m	kg N eq	2.53E-3	9.89E-4	2.34E-4	3.76E-3	1.85E-4	7.85E-4	1.22E-5	-1.27E-3	3.47E-3
EP-T	mol N eq	2.91E-2	1.09E-2	2.58E-3	4.26E-2	2.04E-3	8.63E-3	8.49E-5	-1.42E-2	3.91E-2
POCP	kg NMVOC eq	1.30E-2	3.12E-3	8.20E-4	1.69E-2	5.82E-4	2.74E-3	2.95E-5	-6.35E-3	1.39E-2
ADP-mm	kg Sb eq	1.09E-4	1.26E-5	6.65E-6	1.28E-4	2.35E-6	1.11E-5	2.03E-8	-1.74E-5	1.25E-4
ADP-f	MJ	1.41E+2	7.45E+0	5.01E+0	1.54E+2	1.39E+0	8.90E+0	6.52E-2	-7.51E+1	8.93E+1
WDP	m3 depriv.	2.84E+0	2.29E-2	1.15E+0	4.01E+0	4.27E-3	1.71E-1	2.79E-4	-1.32E+0	2.87E+0
PM	disease inc.	1.43E-7	4.38E-8	1.49E-8	2.02E-7	8.19E-9	4.62E-8	4.39E-10	-6.15E-8	1.95E-7
IR	kBq U-235 eq	8.84E-2	3.26E-2	4.88E-3	1.26E-1	6.09E-3	2.69E-2	2.96E-4	-3.86E-2	1.21E-1
ETP-fw	CTUe	2.84E+1	6.05E+0	6.02E+0	4.04E+1	1.13E+0	1.01E+1	4.97E-2	-1.25E+1	3.92E+1
HTP-c	CTUh	1.17E-9	2.15E-10	3.65E-10	1.75E-9	4.02E-11	1.10E-9	1.32E-12	-4.96E-10	2.40E-9
HTP-nc	CTUh	2.84E-8	7.21E-9	6.63E-9	4.22E-8	1.35E-9	1.43E-8	3.04E-11	-1.23E-8	4.56E-8
SQP	Pt	3.80E+1	6.37E+0	1.04E+0	4.54E+1	1.19E+0	7.19E+0	1.60E-1	-2.18E+1	3.21E+1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	6.80E+0	1.07E-1	1.12E+1	1.81E+1	2.00E-2	4.35E-1	2.04E-3	-4.03E+0	1.45E+1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	6.80E+0	1.07E-1	1.12E+1	1.81E+1	2.00E-2	4.35E-1	2.04E-3	-4.03E+0	1.45E+1
PENRE	MJ	1.52E+2	7.91E+0	5.47E+0	1.65E+2	1.48E+0	9.48E+0	6.92E-2	-8.09E+1	9.53E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.52E+2	7.91E+0	5.47E+0	1.65E+2	1.48E+0	9.48E+0	6.92E-2	-8.09E+1	9.53E+1
PET	MJ	1.59E+2	8.02E+0	1.66E+1	1.83E+2	1.50E+0	9.92E+0	7.12E-2	-8.49E+1	1.10E+2
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	4.44E-2	8.43E-4	2.73E-2	7.25E-2	1.58E-4	5.03E-3	7.95E-5	-2.04E-2	5.74E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	2.36E-5	1.91E-5	5.56E-6	4.82E-5	3.56E-6	1.44E-5	7.66E-8	-1.93E-5	4.69E-5
NHWD	kg	2.00E-1	4.62E-1	5.40E-2	7.16E-1	8.63E-2	4.37E-1	3.47E-1	-6.87E-2	1.52E+0
RWD	kg	8.36E-5	5.07E-5	5.94E-6	1.40E-4	9.47E-6	3.43E-5	4.32E-7	-3.54E-5	1.49E-4
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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