

# Environmental Profile

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

Ecochain v3.5.64



Product: 3067822 - SiTech+ Reducer STR TYPE B 90X75  
 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

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# Results

Environmental impact	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
GWP-total	kg CO2 eq	2.46E-1	3.72E-3	1.70E-2	2.67E-1	3.11E-3	1.52E-1	1.52E-3	-1.45E-1	2.78E-1
GWP-f	kg CO2 eq	2.75E-1	3.72E-3	1.45E-2	2.93E-1	3.11E-3	1.15E-1	1.52E-3	-1.62E-1	2.50E-1
GWP-b	kg CO2 eq	-2.86E-2	2.26E-6	1.23E-3	-2.74E-2	1.89E-6	3.71E-2	1.34E-6	1.73E-2	2.70E-2
GWP-luluc	kg CO2 eq	1.94E-4	1.31E-6	1.23E-3	1.42E-3	1.10E-6	1.75E-5	2.57E-8	-1.66E-4	1.27E-3
ODP	kg CFC11 eq	1.30E-8	8.56E-10	1.46E-9	1.53E-8	7.17E-10	2.52E-9	3.83E-11	-8.14E-9	1.05E-8
AP	mol H+ eq	1.07E-3	2.12E-5	5.85E-5	1.15E-3	1.77E-5	1.05E-4	9.14E-7	-5.09E-4	7.64E-4
EP-fw	kg P eq	5.49E-6	3.06E-8	2.25E-7	5.74E-6	2.56E-8	5.11E-7	1.19E-9	-3.29E-6	3.00E-6
EP-m	kg N eq	1.95E-4	7.57E-6	9.89E-6	2.12E-4	6.34E-6	3.18E-5	6.95E-7	-9.78E-5	1.53E-4
EP-T	mol N eq	2.15E-3	8.34E-5	1.11E-4	2.34E-3	6.98E-5	3.50E-4	3.71E-6	-1.10E-3	1.67E-3
POCP	kg NMVOC eq	9.20E-4	2.39E-5	3.45E-5	9.78E-4	2.00E-5	1.09E-4	1.39E-6	-4.47E-4	6.61E-4
ADP-mm	kg Sb eq	1.39E-5	9.61E-8	3.53E-7	1.43E-5	8.04E-8	4.08E-7	9.16E-10	-1.45E-6	1.34E-5
ADP-f	MJ	9.24E+0	5.70E-2	1.91E-1	9.49E+0	4.77E-2	3.14E-1	2.79E-3	-4.78E+0	5.07E+0
WDP	m3 depriv.	1.84E-1	1.75E-4	6.76E-2	2.51E-1	1.46E-4	6.18E-3	1.28E-5	-1.03E-1	1.55E-1
PM	disease inc.	1.08E-8	3.35E-10	5.86E-10	1.18E-8	2.81E-10	1.68E-9	1.92E-11	-5.52E-9	8.22E-9
IR	kBq U-235 eq	7.46E-3	2.49E-4	1.78E-4	7.89E-3	2.09E-4	9.70E-4	1.30E-5	-3.44E-3	5.64E-3
ETP-fw	CTUe	4.04E+0	4.63E-2	3.01E-1	4.39E+0	3.88E-2	4.06E-1	2.63E-3	-2.03E+0	2.81E+0
HTP-c	CTUh	8.63E-11	1.65E-12	1.61E-11	1.04E-10	1.38E-12	4.21E-11	6.79E-14	-4.50E-11	1.03E-10
HTP-nc	CTUh	2.10E-9	5.52E-11	3.33E-10	2.49E-9	4.62E-11	5.37E-10	1.57E-12	-1.11E-9	1.96E-9
SQP	Pt	3.61E+0	4.88E-2	3.48E-2	3.69E+0	4.08E-2	2.45E-1	7.17E-3	-5.38E+0	-1.39E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	6.50E-1	8.18E-4	6.61E-1	1.31E+0	6.85E-4	1.51E-2	1.11E-4	-9.44E-1	3.84E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	6.50E-1	8.18E-4	6.61E-1	1.31E+0	6.85E-4	1.51E-2	1.11E-4	-9.44E-1	3.84E-1
PENRE	MJ	9.91E+0	6.05E-2	2.08E-1	1.02E+1	5.07E-2	3.34E-1	2.96E-3	-5.15E+0	5.42E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	9.91E+0	6.05E-2	2.08E-1	1.02E+1	5.07E-2	3.34E-1	2.96E-3	-5.15E+0	5.42E+0
PET	MJ	1.06E+1	6.14E-2	8.69E-1	1.15E+1	5.14E-2	3.49E-1	3.08E-3	-6.09E+0	5.80E+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	3.07E-3	6.45E-6	1.60E-3	4.68E-3	5.40E-6	2.10E-4	3.45E-6	-1.85E-3	3.05E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.92E-6	1.46E-7	1.86E-7	2.25E-6	1.22E-7	5.44E-7	3.35E-9	-1.60E-6	1.31E-6
NHWD	kg	1.56E-2	3.53E-3	1.81E-3	2.09E-2	2.96E-3	1.57E-2	1.23E-2	-6.02E-3	4.59E-2
RWD	kg	7.81E-6	3.88E-7	1.98E-7	8.40E-6	3.25E-7	1.24E-6	1.83E-8	-3.27E-6	6.72E-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



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