

Environmental Profile

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

Ecochain v3.5.64



Product: 3067821 - SiTech+ Reducer STR TYPE B 90X50
 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	2.34E-1	4.71E-3	1.65E-2	2.55E-1	3.02E-3	1.42E-1	1.46E-3	-1.39E-1	2.63E-1
GWP-f	kg CO2 eq	2.62E-1	4.70E-3	1.41E-2	2.81E-1	3.02E-3	1.05E-1	1.46E-3	-1.57E-1	2.34E-1
GWP-b	kg CO2 eq	-2.85E-2	2.86E-6	1.19E-3	-2.73E-2	1.83E-6	3.71E-2	1.28E-6	1.73E-2	2.71E-2
GWP-luluc	kg CO2 eq	1.86E-4	1.66E-6	1.19E-3	1.38E-3	1.07E-6	1.71E-5	2.47E-8	-1.65E-4	1.23E-3
ODP	kg CFC11 eq	1.10E-8	1.08E-9	1.42E-9	1.35E-8	6.95E-10	2.46E-9	3.67E-11	-7.66E-9	9.00E-9
AP	mol H+ eq	1.01E-3	2.68E-5	5.70E-5	1.09E-3	1.72E-5	1.02E-4	8.76E-7	-4.98E-4	7.13E-4
EP-fw	kg P eq	5.15E-6	3.87E-8	2.19E-7	5.40E-6	2.48E-8	5.00E-7	1.14E-9	-3.25E-6	2.68E-6
EP-m	kg N eq	1.85E-4	9.58E-6	9.62E-6	2.04E-4	6.15E-6	3.08E-5	6.41E-7	-9.57E-5	1.46E-4
EP-T	mol N eq	2.03E-3	1.06E-4	1.08E-4	2.25E-3	6.77E-5	3.39E-4	3.56E-6	-1.07E-3	1.58E-3
POCP	kg NMVOC eq	8.69E-4	3.02E-5	3.36E-5	9.33E-4	1.94E-5	1.06E-4	1.33E-6	-4.37E-4	6.22E-4
ADP-mm	kg Sb eq	1.06E-5	1.22E-7	3.44E-7	1.11E-5	7.80E-8	4.00E-7	8.79E-10	-1.33E-6	1.03E-5
ADP-f	MJ	8.86E+0	7.22E-2	1.86E-1	9.12E+0	4.63E-2	3.07E-1	2.68E-3	-4.64E+0	4.83E+0
WDP	m3 depriv.	1.75E-1	2.22E-4	6.58E-2	2.41E-1	1.42E-4	5.97E-3	1.23E-5	-1.01E-1	1.46E-1
PM	disease inc.	1.01E-8	4.24E-10	5.71E-10	1.11E-8	2.72E-10	1.64E-9	1.84E-11	-5.44E-9	7.62E-9
IR	kBq U-235 eq	6.66E-3	3.15E-4	1.73E-4	7.15E-3	2.02E-4	9.50E-4	1.25E-5	-3.36E-3	4.95E-3
ETP-fw	CTUe	3.84E+0	5.86E-2	2.93E-1	4.19E+0	3.76E-2	3.87E-1	2.45E-3	-2.01E+0	2.61E+0
HTP-c	CTUh	8.10E-11	2.09E-12	1.56E-11	9.87E-11	1.34E-12	4.13E-11	6.49E-14	-4.42E-11	9.72E-11
HTP-nc	CTUh	1.97E-9	6.99E-11	3.24E-10	2.36E-9	4.48E-11	5.22E-10	1.49E-12	-1.09E-9	1.84E-9
SQP	Pt	3.56E+0	6.18E-2	3.39E-2	3.65E+0	3.96E-2	2.40E-1	6.88E-3	-5.38E+0	-1.44E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	6.38E-1	1.04E-3	6.43E-1	1.28E+0	6.64E-4	1.48E-2	1.06E-4	-9.42E-1	3.56E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	6.38E-1	1.04E-3	6.43E-1	1.28E+0	6.64E-4	1.48E-2	1.06E-4	-9.42E-1	3.56E-1
PENRE	MJ	9.50E+0	7.66E-2	2.03E-1	9.78E+0	4.92E-2	3.27E-1	2.84E-3	-5.00E+0	5.16E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	9.50E+0	7.66E-2	2.03E-1	9.78E+0	4.92E-2	3.27E-1	2.84E-3	-5.00E+0	5.16E+0
PET	MJ	1.01E+1	7.77E-2	8.46E-1	1.11E+1	4.98E-2	3.42E-1	2.95E-3	-5.94E+0	5.52E+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	2.89E-3	8.17E-6	1.56E-3	4.46E-3	5.24E-6	1.96E-4	3.31E-6	-1.82E-3	2.84E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	1.76E-6	1.85E-7	1.81E-7	2.12E-6	1.18E-7	5.28E-7	3.22E-9	-1.52E-6	1.25E-6
NHWD	kg	1.46E-2	4.47E-3	1.76E-3	2.08E-2	2.87E-3	1.53E-2	1.18E-2	-5.92E-3	4.48E-2
RWD	kg	6.77E-6	4.91E-7	1.93E-7	7.46E-6	3.15E-7	1.22E-6	1.75E-8	-3.18E-6	5.83E-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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