

Environmental Profile

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

Ecochain v3.5.64



Product: 3067823 - SiTech+ Reducer STR TYPE B 110X90
 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	4.02E-1	8.28E-3	2.84E-2	4.39E-1	5.18E-3	2.40E-1	2.52E-3	-2.45E-1	4.42E-1
GWP-f	kg CO2 eq	4.45E-1	8.28E-3	2.43E-2	4.78E-1	5.18E-3	1.87E-1	2.52E-3	-2.64E-1	4.09E-1
GWP-b	kg CO2 eq	-4.29E-2	5.03E-6	2.05E-3	-4.08E-2	3.14E-6	5.27E-2	2.22E-6	1.92E-2	3.11E-2
GWP-luluc	kg CO2 eq	2.63E-4	2.93E-6	2.05E-3	2.31E-3	1.83E-6	2.89E-5	4.27E-8	-2.06E-4	2.14E-3
ODP	kg CFC11 eq	1.94E-8	1.91E-9	2.44E-9	2.37E-8	1.19E-9	4.06E-9	6.35E-11	-1.26E-8	1.65E-8
AP	mol H+ eq	1.71E-3	4.71E-5	9.79E-5	1.85E-3	2.95E-5	1.71E-4	1.52E-6	-7.99E-4	1.26E-3
EP-fw	kg P eq	8.38E-6	6.81E-8	3.77E-7	8.82E-6	4.26E-8	8.43E-7	1.97E-9	-4.61E-6	5.10E-6
EP-m	kg N eq	3.04E-4	1.69E-5	1.65E-5	3.37E-4	1.06E-5	5.11E-5	1.14E-6	-1.51E-4	2.49E-4
EP-T	mol N eq	3.37E-3	1.86E-4	1.86E-4	3.74E-3	1.16E-4	5.62E-4	6.15E-6	-1.69E-3	2.73E-3
POCP	kg NMVOC eq	1.48E-3	5.31E-5	5.77E-5	1.59E-3	3.32E-5	1.75E-4	2.30E-6	-7.11E-4	1.09E-3
ADP-mm	kg Sb eq	2.13E-5	2.14E-7	5.91E-7	2.21E-5	1.34E-7	6.60E-7	1.52E-9	-2.29E-6	2.06E-5
ADP-f	MJ	1.52E+1	1.27E-1	3.19E-1	1.56E+1	7.95E-2	5.14E-1	4.63E-3	-7.86E+0	8.36E+0
WDP	m3 depriv.	3.01E-1	3.90E-4	1.13E-1	4.14E-1	2.44E-4	1.02E-2	2.12E-5	-1.58E-1	2.67E-1
PM	disease inc.	1.70E-8	7.47E-10	9.80E-10	1.87E-8	4.67E-10	2.72E-9	3.18E-11	-8.21E-9	1.37E-8
IR	kBq U-235 eq	1.16E-2	5.55E-4	2.98E-4	1.25E-2	3.47E-4	1.58E-3	2.16E-5	-5.10E-3	9.31E-3
ETP-fw	CTUe	5.42E+0	1.03E-1	5.04E-1	6.03E+0	6.45E-2	6.54E-1	4.32E-3	-2.63E+0	4.13E+0
HTP-c	CTUh	1.35E-10	3.67E-12	2.69E-11	1.65E-10	2.30E-12	6.89E-11	1.12E-13	-6.76E-11	1.69E-10
HTP-nc	CTUh	3.30E-9	1.23E-10	5.57E-10	3.98E-9	7.69E-11	8.79E-10	2.59E-12	-1.65E-9	3.29E-9
SQP	Pt	5.20E+0	1.09E-1	5.82E-2	5.36E+0	6.80E-2	4.04E-1	1.19E-2	-6.89E+0	-1.05E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	9.39E-1	1.82E-3	1.11E+0	2.05E+0	1.14E-3	2.50E-2	1.83E-4	-1.21E+0	8.65E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	9.39E-1	1.82E-3	1.11E+0	2.05E+0	1.14E-3	2.50E-2	1.83E-4	-1.21E+0	8.65E-1
PENRE	MJ	1.63E+1	1.35E-1	3.48E-1	1.68E+1	8.44E-2	5.48E-1	4.92E-3	-8.47E+0	8.93E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.63E+1	1.35E-1	3.48E-1	1.68E+1	8.44E-2	5.48E-1	4.92E-3	-8.47E+0	8.93E+0
PET	MJ	1.72E+1	1.37E-1	1.45E+0	1.88E+1	8.55E-2	5.73E-1	5.10E-3	-9.68E+0	9.79E+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	4.93E-3	1.44E-5	2.68E-3	7.63E-3	8.99E-6	3.42E-4	5.73E-6	-2.72E-3	5.26E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	2.91E-6	3.25E-7	3.10E-7	3.55E-6	2.03E-7	8.81E-7	5.56E-9	-2.50E-6	2.14E-6
NHWD	kg	2.37E-2	7.87E-3	3.03E-3	3.46E-2	4.93E-3	2.58E-2	2.04E-2	-9.08E-3	7.66E-2
RWD	kg	1.20E-5	8.64E-7	3.31E-7	1.32E-5	5.40E-7	2.02E-6	3.03E-8	-4.82E-6	1.10E-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