

Environmental Profile

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

Ecochain v3.5.64



Product: 3067813 - SiTech+ Reducer STR TYPE A 50X32
 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	1.05E-1	2.70E-3	6.75E-3	1.14E-1	1.28E-3	7.23E-2	6.39E-4	-6.10E-2	1.28E-1
GWP-f	kg CO2 eq	1.19E-1	2.69E-3	5.78E-3	1.28E-1	1.28E-3	5.40E-2	6.39E-4	-6.90E-2	1.15E-1
GWP-b	kg CO2 eq	-1.45E-2	1.64E-6	4.88E-4	-1.40E-2	7.77E-7	1.83E-2	5.68E-7	8.01E-3	1.22E-2
GWP-luluc	kg CO2 eq	9.15E-5	9.54E-7	4.88E-4	5.80E-4	4.53E-7	7.06E-6	1.09E-8	-7.53E-5	5.13E-4
ODP	kg CFC11 eq	7.38E-9	6.21E-10	5.80E-10	8.58E-9	2.95E-10	1.04E-9	1.62E-11	-3.75E-9	6.18E-9
AP	mol H+ eq	4.82E-4	1.54E-5	2.33E-5	5.21E-4	7.29E-6	4.40E-5	3.87E-7	-2.14E-4	3.59E-4
EP-fw	kg P eq	2.56E-6	2.22E-8	8.98E-8	2.67E-6	1.05E-8	2.08E-7	5.03E-10	-1.44E-6	1.45E-6
EP-m	kg N eq	8.78E-5	5.49E-6	3.94E-6	9.73E-5	2.61E-6	1.34E-5	3.21E-7	-4.18E-5	7.18E-5
EP-T	mol N eq	9.68E-4	6.05E-5	4.42E-5	1.07E-3	2.87E-5	1.47E-4	1.57E-6	-4.70E-4	7.81E-4
POCP	kg NMVOC eq	4.13E-4	1.73E-5	1.37E-5	4.44E-4	8.21E-6	4.55E-5	5.87E-7	-1.88E-4	3.10E-4
ADP-mm	kg Sb eq	8.76E-6	6.97E-8	1.41E-7	8.97E-6	3.31E-8	1.67E-7	3.88E-10	-6.99E-7	8.47E-6
ADP-f	MJ	3.94E+0	4.14E-2	7.61E-2	4.06E+0	1.96E-2	1.28E-1	1.18E-3	-1.98E+0	2.23E+0
WDP	m3 depriv.	7.89E-2	1.27E-4	2.69E-2	1.06E-1	6.02E-5	2.58E-3	5.42E-6	-4.29E-2	6.56E-2
PM	disease inc.	5.05E-9	2.43E-10	2.33E-10	5.53E-9	1.15E-10	6.85E-10	8.12E-12	-2.38E-9	3.96E-9
IR	kBq U-235 eq	3.77E-3	1.81E-4	7.09E-5	4.03E-3	8.58E-5	3.97E-4	5.52E-6	-1.50E-3	3.02E-3
ETP-fw	CTUe	1.94E+0	3.36E-2	1.20E-1	2.09E+0	1.59E-2	1.78E-1	1.19E-3	-9.11E-1	1.38E+0
HTP-c	CTUh	4.06E-11	1.20E-12	6.40E-12	4.82E-11	5.67E-13	1.71E-11	2.89E-14	-2.00E-11	4.60E-11
HTP-nc	CTUh	9.69E-10	4.00E-11	1.33E-10	1.14E-9	1.90E-11	2.22E-10	6.85E-13	-4.79E-10	9.05E-10
SQP	Pt	1.78E+0	3.54E-2	1.39E-2	1.83E+0	1.68E-2	9.93E-2	3.03E-3	-2.55E+0	-6.04E-1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	3.14E-1	5.93E-4	2.63E-1	5.77E-1	2.82E-4	6.14E-3	4.72E-5	-4.44E-1	1.40E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	3.14E-1	5.93E-4	2.63E-1	5.77E-1	2.82E-4	6.14E-3	4.72E-5	-4.44E-1	1.40E-1
PENRE	MJ	4.22E+0	4.39E-2	8.30E-2	4.35E+0	2.08E-2	1.36E-1	1.25E-3	-2.13E+0	2.37E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	4.22E+0	4.39E-2	8.30E-2	4.35E+0	2.08E-2	1.36E-1	1.25E-3	-2.13E+0	2.37E+0
PET	MJ	4.54E+0	4.45E-2	3.46E-1	4.93E+0	2.11E-2	1.42E-1	1.30E-3	-2.58E+0	2.52E+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	1.38E-3	4.68E-6	6.39E-4	2.02E-3	2.22E-6	9.49E-5	1.46E-6	-7.90E-4	1.33E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	9.43E-7	1.06E-7	7.39E-8	1.12E-6	5.02E-8	2.27E-7	1.42E-9	-7.36E-7	6.67E-7
NHWD	kg	7.33E-3	2.56E-3	7.20E-4	1.06E-2	1.22E-3	6.54E-3	5.21E-3	-2.64E-3	2.09E-2
RWD	kg	4.17E-6	2.81E-7	7.89E-8	4.53E-6	1.34E-7	5.09E-7	7.73E-9	-1.44E-6	3.74E-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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