

Environmental Profile

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

Ecochain v3.5.64



Product: 3067816 - SiTech+ Reducer STR TYPE A 110X50
 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	4.32E-1	8.09E-3	3.24E-2	4.72E-1	5.81E-3	2.58E-1	2.77E-3	-2.68E-1	4.71E-1
GWP-f	kg CO2 eq	4.88E-1	8.08E-3	2.77E-2	5.24E-1	5.81E-3	1.87E-1	2.77E-3	-2.95E-1	4.25E-1
GWP-b	kg CO2 eq	-5.68E-2	4.91E-6	2.34E-3	-5.45E-2	3.53E-6	7.10E-2	2.43E-6	2.73E-2	4.38E-2
GWP-luluc	kg CO2 eq	3.12E-4	2.86E-6	2.34E-3	2.66E-3	2.06E-6	3.31E-5	4.67E-8	-2.76E-4	2.42E-3
ODP	kg CFC11 eq	1.63E-8	1.86E-9	2.78E-9	2.09E-8	1.34E-9	4.67E-9	6.97E-11	-1.37E-8	1.33E-8
AP	mol H+ eq	1.83E-3	4.61E-5	1.12E-4	1.99E-3	3.31E-5	1.94E-4	1.66E-6	-9.37E-4	1.28E-3
EP-fw	kg P eq	9.03E-6	6.65E-8	4.31E-7	9.53E-6	4.78E-8	9.65E-7	2.15E-9	-5.75E-6	4.79E-6
EP-m	kg N eq	3.34E-4	1.65E-5	1.89E-5	3.70E-4	1.18E-5	5.80E-5	1.16E-6	-1.78E-4	2.62E-4
EP-T	mol N eq	3.69E-3	1.82E-4	2.12E-4	4.08E-3	1.30E-4	6.38E-4	6.75E-6	-2.00E-3	2.86E-3
POCP	kg NMVOC eq	1.59E-3	5.19E-5	6.60E-5	1.71E-3	3.73E-5	2.00E-4	2.53E-6	-8.28E-4	1.12E-3
ADP-mm	kg Sb eq	1.37E-5	2.09E-7	6.75E-7	1.45E-5	1.50E-7	7.64E-7	1.67E-9	-2.32E-6	1.31E-5
ADP-f	MJ	1.67E+1	1.24E-1	3.65E-1	1.72E+1	8.91E-2	5.90E-1	5.09E-3	-8.89E+0	9.00E+0
WDP	m3 depriv.	3.29E-1	3.81E-4	1.29E-1	4.59E-1	2.74E-4	1.14E-2	2.33E-5	-1.88E-1	2.82E-1
PM	disease inc.	1.80E-8	7.30E-10	1.12E-9	1.99E-8	5.24E-10	3.14E-9	3.50E-11	-9.98E-9	1.36E-8
IR	kBq U-235 eq	1.11E-2	5.42E-4	3.41E-4	1.20E-2	3.90E-4	1.82E-3	2.37E-5	-6.09E-3	8.16E-3
ETP-fw	CTUe	6.29E+0	1.01E-1	5.76E-1	6.96E+0	7.24E-2	7.14E-1	4.46E-3	-3.41E+0	4.34E+0
HTP-c	CTUh	1.46E-10	3.59E-12	3.07E-11	1.80E-10	2.58E-12	7.95E-11	1.23E-13	-8.24E-11	1.80E-10
HTP-nc	CTUh	3.53E-9	1.20E-10	6.37E-10	4.28E-9	8.63E-11	9.97E-10	2.78E-12	-2.00E-9	3.37E-9
SQP	Pt	6.69E+0	1.06E-1	6.65E-2	6.86E+0	7.63E-2	4.64E-1	1.31E-2	-9.41E+0	-2.00E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.19E+0	1.78E-3	1.26E+0	2.45E+0	1.28E-3	2.85E-2	1.99E-4	-1.64E+0	8.43E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.19E+0	1.78E-3	1.26E+0	2.45E+0	1.28E-3	2.85E-2	1.99E-4	-1.64E+0	8.43E-1
PENRE	MJ	1.79E+1	1.32E-1	3.98E-1	1.85E+1	9.46E-2	6.29E-1	5.40E-3	-9.57E+0	9.61E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.79E+1	1.32E-1	3.98E-1	1.85E+1	9.46E-2	6.29E-1	5.40E-3	-9.57E+0	9.61E+0
PET	MJ	1.91E+1	1.34E-1	1.66E+0	2.09E+1	9.59E-2	6.57E-1	5.60E-3	-1.12E+1	1.05E+1
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	5.27E-3	1.40E-5	3.07E-3	8.35E-3	1.01E-5	3.58E-4	6.28E-6	-3.30E-3	5.42E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	3.02E-6	3.17E-7	3.55E-7	3.69E-6	2.28E-7	1.00E-6	6.11E-9	-2.75E-6	2.17E-6
NHWD	kg	2.57E-2	7.69E-3	3.46E-3	3.68E-2	5.52E-3	2.91E-2	2.24E-2	-1.10E-2	8.28E-2
RWD	kg	1.08E-5	8.44E-7	3.79E-7	1.20E-5	6.06E-7	2.33E-6	3.32E-8	-5.72E-6	9.26E-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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