

Environmental Profile

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

Ecochain v3.5.64



Product: 3067817 - SiTech+ Reducer STR TYPE A 110X75
 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	4.97E-1	7.17E-3	3.63E-2	5.41E-1	6.54E-3	2.67E-1	3.13E-3	-3.05E-1	5.12E-1
GWP-f	kg CO2 eq	5.39E-1	7.17E-3	3.11E-2	5.77E-1	6.53E-3	2.15E-1	3.13E-3	-3.24E-1	4.78E-1
GWP-b	kg CO2 eq	-4.21E-2	4.35E-6	2.62E-3	-3.95E-2	3.97E-6	5.27E-2	2.75E-6	1.90E-2	3.21E-2
GWP-luluc	kg CO2 eq	2.79E-4	2.54E-6	2.62E-3	2.90E-3	2.31E-6	3.68E-5	5.28E-8	-2.19E-4	2.73E-3
ODP	kg CFC11 eq	1.79E-8	1.65E-9	3.12E-9	2.26E-8	1.51E-9	5.06E-9	7.87E-11	-1.44E-8	1.49E-8
AP	mol H+ eq	2.01E-3	4.08E-5	1.25E-4	2.17E-3	3.72E-5	2.12E-4	1.88E-6	-9.78E-4	1.45E-3
EP-fw	kg P eq	9.45E-6	5.90E-8	4.83E-7	9.99E-6	5.37E-8	1.07E-6	2.43E-9	-5.32E-6	5.80E-6
EP-m	kg N eq	3.54E-4	1.46E-5	2.12E-5	3.90E-4	1.33E-5	6.29E-5	1.33E-6	-1.83E-4	2.85E-4
EP-T	mol N eq	3.94E-3	1.61E-4	2.38E-4	4.34E-3	1.47E-4	6.92E-4	7.62E-6	-2.04E-3	3.14E-3
POCP	kg NMVOC eq	1.75E-3	4.60E-5	7.39E-5	1.87E-3	4.19E-5	2.17E-4	2.86E-6	-8.72E-4	1.26E-3
ADP-mm	kg Sb eq	1.74E-5	1.85E-7	7.57E-7	1.83E-5	1.69E-7	8.30E-7	1.88E-9	-2.55E-6	1.68E-5
ADP-f	MJ	1.87E+1	1.10E-1	4.09E-1	1.92E+1	1.00E-1	6.50E-1	5.74E-3	-9.84E+0	1.01E+1
WDP	m3 depriv.	3.68E-1	3.38E-4	1.45E-1	5.13E-1	3.08E-4	1.27E-2	2.63E-5	-1.93E-1	3.32E-1
PM	disease inc.	1.93E-8	6.47E-10	1.26E-9	2.12E-8	5.90E-10	3.43E-9	3.95E-11	-9.72E-9	1.55E-8
IR	kBq U-235 eq	1.23E-2	4.81E-4	3.82E-4	1.32E-2	4.38E-4	1.99E-3	2.67E-5	-5.99E-3	9.65E-3
ETP-fw	CTUe	5.65E+0	8.93E-2	6.45E-1	6.39E+0	8.14E-2	7.87E-1	5.10E-3	-2.87E+0	4.39E+0
HTP-c	CTUh	1.52E-10	3.18E-12	3.44E-11	1.89E-10	2.90E-12	8.72E-11	1.39E-13	-7.80E-11	2.01E-10
HTP-nc	CTUh	3.79E-9	1.06E-10	7.14E-10	4.61E-9	9.71E-11	1.10E-9	3.15E-12	-1.95E-9	3.87E-9
SQP	Pt	5.24E+0	9.41E-2	7.45E-2	5.41E+0	8.58E-2	5.13E-1	1.47E-2	-6.94E+0	-9.17E-1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	9.78E-1	1.58E-3	1.41E+0	2.39E+0	1.44E-3	3.17E-2	2.26E-4	-1.23E+0	1.20E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	9.78E-1	1.58E-3	1.41E+0	2.39E+0	1.44E-3	3.17E-2	2.26E-4	-1.23E+0	1.20E+0
PENRE	MJ	2.00E+1	1.17E-1	4.46E-1	2.06E+1	1.06E-1	6.93E-1	6.09E-3	-1.06E+1	1.08E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	2.00E+1	1.17E-1	4.46E-1	2.06E+1	1.06E-1	6.93E-1	6.09E-3	-1.06E+1	1.08E+1
PET	MJ	2.10E+1	1.18E-1	1.86E+0	2.30E+1	1.08E-1	7.24E-1	6.32E-3	-1.18E+1	1.20E+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	5.83E-3	1.24E-5	3.44E-3	9.28E-3	1.13E-5	4.04E-4	7.10E-6	-3.25E-3	6.45E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	3.12E-6	2.81E-7	3.97E-7	3.80E-6	2.56E-7	1.09E-6	6.90E-9	-2.87E-6	2.29E-6
NHWD	kg	2.63E-2	6.82E-3	3.87E-3	3.70E-2	6.21E-3	3.22E-2	2.53E-2	-1.06E-2	9.02E-2
RWD	kg	1.21E-5	7.48E-7	4.24E-7	1.32E-5	6.82E-7	2.54E-6	3.76E-8	-5.60E-6	1.09E-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



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