

Environmental Profile

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

Ecochain v3.5.64



Product: 3076496 - SiTech+ Reducer STR TYPE B 110X75
Unit: 1 piece
Manufacturer: Wavin - IT - SM Maddalena

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.

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



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					Use stage							End-of-Life stage				
A1 Raw material supply A2 Transport A3 Manufacturing					B1 Use B2 Maintenance B3 Repair B4 Replacement B5 Refurbishment B6 Operational energy use B7 Operational water use							C1 De-construction demolition C2 Transport C3 Waste processing C4 Disposal				
Construction process stage												Benefits and loads beyond the system boundaries				
A4 Transport gate to site A5 Assembly / Construction installation process												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	1.89E-1	4.04E-2	1.64E-2	2.46E-1	3.01E-3	1.65E-1	1.47E-3	-1.25E-1	2.90E-1
GWP-f	kg CO2 eq	2.33E-1	4.04E-2	1.40E-2	2.87E-1	3.00E-3	1.12E-1	1.47E-3	-1.45E-1	2.59E-1
GWP-b	kg CO2 eq	-4.40E-2	2.45E-5	1.18E-3	-4.28E-2	1.82E-6	5.28E-2	1.30E-6	1.96E-2	2.96E-2
GWP-luluc	kg CO2 eq	2.42E-4	1.43E-5	1.18E-3	1.44E-3	1.06E-6	1.70E-5	2.49E-8	-1.86E-4	1.27E-3
ODP	kg CFC11 eq	2.27E-8	9.30E-9	1.40E-9	3.34E-8	6.92E-10	2.49E-9	3.70E-11	-6.70E-9	2.99E-8
AP	mol H+ eq	1.03E-3	2.30E-4	5.65E-5	1.32E-3	1.71E-5	1.04E-4	8.84E-7	-5.07E-4	9.31E-4
EP-fw	kg P eq	6.00E-6	3.32E-7	2.17E-7	6.55E-6	2.47E-8	4.98E-7	1.15E-9	-3.50E-6	3.57E-6
EP-m	kg N eq	2.07E-4	8.23E-5	9.54E-6	2.99E-4	6.12E-6	3.15E-5	6.75E-7	-9.76E-5	2.40E-4
EP-T	mol N eq	2.29E-3	9.07E-4	1.07E-4	3.30E-3	6.75E-5	3.46E-4	3.59E-6	-1.10E-3	2.62E-3
POCP	kg NMVOC eq	8.04E-4	2.59E-4	3.33E-5	1.10E-3	1.93E-5	1.07E-4	1.34E-6	-4.43E-4	7.81E-4
ADP-mm	kg Sb eq	1.49E-5	1.04E-6	3.41E-7	1.63E-5	7.77E-8	4.01E-7	8.86E-10	-1.46E-6	1.53E-5
ADP-f	MJ	5.69E+0	6.20E-1	1.84E-1	6.50E+0	4.61E-2	3.07E-1	2.70E-3	-4.41E+0	2.44E+0
WDP	m3 depriv.	2.09E-1	1.90E-3	6.52E-2	2.76E-1	1.42E-4	6.00E-3	1.24E-5	-1.03E-1	1.79E-1
PM	disease inc.	1.16E-8	3.64E-9	5.65E-10	1.58E-8	2.71E-10	1.65E-9	1.86E-11	-5.84E-9	1.19E-8
IR	kBq U-235 eq	9.52E-3	2.71E-3	1.72E-4	1.24E-2	2.02E-4	9.54E-4	1.26E-5	-3.53E-3	1.00E-2
ETP-fw	CTUe	3.85E+1	5.03E-1	2.91E-1	3.93E+1	3.74E-2	4.00E-1	2.56E-3	-2.21E+0	3.75E+1
HTP-c	CTUh	1.08E-10	1.79E-11	1.55E-11	1.41E-10	1.33E-12	4.13E-11	6.57E-14	-4.97E-11	1.34E-10
HTP-nc	CTUh	1.80E-8	6.00E-10	3.21E-10	1.89E-8	4.46E-11	5.25E-10	1.52E-12	-1.16E-9	1.83E-8
SQP	Pt	5.13E+0	5.30E-1	3.36E-2	5.69E+0	3.95E-2	2.39E-1	6.94E-3	-6.80E+0	-8.23E-1
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	1.26E+0	8.89E-3	6.37E-1	1.90E+0	6.62E-4	1.47E-2	1.07E-4	-1.17E+0	7.52E-1
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	1.26E+0	8.89E-3	6.37E-1	1.90E+0	6.62E-4	1.47E-2	1.07E-4	-1.17E+0	7.52E-1
PENRE	MJ	6.10E+0	6.58E-1	2.01E-1	6.96E+0	4.90E-2	3.27E-1	2.87E-3	-4.75E+0	2.59E+0
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	6.10E+0	6.58E-1	2.01E-1	6.96E+0	4.90E-2	3.27E-1	2.87E-3	-4.75E+0	2.59E+0
PET	MJ	7.35E+0	6.67E-1	8.38E-1	8.86E+0	4.96E-2	3.41E-1	2.98E-3	-5.91E+0	3.34E+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	4.57E-3	7.01E-5	1.55E-3	6.19E-3	5.22E-6	2.06E-4	3.34E-6	-1.90E-3	4.51E-3

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	2.76E-6	1.59E-6	1.79E-7	4.53E-6	1.18E-7	5.36E-7	3.24E-9	-1.36E-6	3.82E-6
NHWD	kg	2.58E-2	3.84E-2	1.74E-3	6.59E-2	2.86E-3	1.54E-2	1.19E-2	-6.55E-3	8.95E-2
RWD	kg	1.13E-5	4.21E-6	1.91E-7	1.57E-5	3.14E-7	1.22E-6	1.77E-8	-3.34E-6	1.40E-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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