

Environmental Profile

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

Ecochain v3.5.64



Product: 3067779 - SiTech+ Branch Reduced STEA 87,5° 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	1.21E+0	2.17E-2	8.62E-2	1.32E+0	1.58E-2	6.97E-1	7.61E-3	-7.33E-1	1.31E+0
GWP-f	kg CO2 eq	1.34E+0	2.16E-2	7.37E-2	1.44E+0	1.58E-2	5.33E-1	7.61E-3	-8.04E-1	1.19E+0
GWP-b	kg CO2 eq	-1.27E-1	1.31E-5	6.23E-3	-1.21E-1	9.60E-6	1.64E-1	6.68E-6	7.11E-2	1.14E-1
GWP-luluc	kg CO2 eq	8.38E-4	7.66E-6	6.22E-3	7.07E-3	5.60E-6	8.95E-5	1.28E-7	-7.16E-4	6.45E-3
ODP	kg CFC11 eq	4.98E-8	4.99E-9	7.40E-9	6.22E-8	3.64E-9	1.26E-8	1.91E-10	-3.76E-8	4.10E-8
AP	mol H+ eq	5.06E-3	1.23E-4	2.97E-4	5.49E-3	9.01E-5	5.27E-4	4.56E-6	-2.51E-3	3.60E-3
EP-fw	kg P eq	2.50E-5	1.78E-7	1.15E-6	2.63E-5	1.30E-7	2.61E-6	5.91E-9	-1.52E-5	1.39E-5
EP-m	kg N eq	9.16E-4	4.41E-5	5.02E-5	1.01E-3	3.22E-5	1.57E-4	3.27E-6	-4.75E-4	7.28E-4
EP-T	mol N eq	1.01E-2	4.86E-4	5.64E-4	1.12E-2	3.55E-4	1.73E-3	1.85E-5	-5.33E-3	7.95E-3
POCP	kg NMVOC eq	4.39E-3	1.39E-4	1.75E-4	4.70E-3	1.02E-4	5.41E-4	6.95E-6	-2.21E-3	3.14E-3
ADP-mm	kg Sb eq	4.74E-5	5.60E-7	1.80E-6	4.98E-5	4.09E-7	2.06E-6	4.58E-9	-6.55E-6	4.57E-5
ADP-f	MJ	4.58E+1	3.32E-1	9.70E-1	4.71E+1	2.43E-1	1.60E+0	1.40E-2	-2.41E+1	2.49E+1
WDP	m3 depriv.	9.05E-1	1.02E-3	3.43E-1	1.25E+0	7.45E-4	3.11E-2	6.39E-5	-5.04E-1	7.77E-1
PM	disease inc.	4.99E-8	1.95E-9	2.98E-9	5.49E-8	1.43E-9	8.48E-9	9.60E-11	-2.63E-8	3.85E-8
IR	kBq U-235 eq	3.22E-2	1.45E-3	9.05E-4	3.45E-2	1.06E-3	4.91E-3	6.50E-5	-1.63E-2	2.43E-2
ETP-fw	CTUe	1.72E+1	2.70E-1	1.53E+0	1.90E+1	1.97E-1	1.97E+0	1.25E-2	-8.95E+0	1.22E+1
HTP-c	CTUh	3.96E-10	9.60E-12	8.16E-11	4.87E-10	7.02E-12	2.14E-10	3.38E-13	-2.13E-10	4.96E-10
HTP-nc	CTUh	9.75E-9	3.21E-10	1.69E-9	1.18E-8	2.35E-10	2.71E-9	7.70E-12	-5.28E-9	9.43E-9
SQP	Pt	1.59E+1	2.84E-1	1.77E-1	1.64E+1	2.08E-1	1.25E+0	3.59E-2	-2.31E+1	-5.25E+0
Resource use	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
PERE	MJ	2.90E+0	4.76E-3	3.36E+0	6.26E+0	3.48E-3	7.72E-2	5.49E-4	-4.07E+0	2.27E+0
PERM	MJ	0	0	0	0	0	0	0	0	0
PERT	MJ	2.90E+0	4.76E-3	3.36E+0	6.26E+0	3.48E-3	7.72E-2	5.49E-4	-4.07E+0	2.27E+0
PENRE	MJ	4.91E+1	3.53E-1	1.06E+0	5.06E+1	2.58E-1	1.70E+0	1.48E-2	-2.60E+1	2.65E+1
PENRM	MJ	0	0	0	0	0	0	0	0	0
PENRT	MJ	4.91E+1	3.53E-1	1.06E+0	5.06E+1	2.58E-1	1.70E+0	1.48E-2	-2.60E+1	2.65E+1
PET	MJ	5.20E+1	3.57E-1	4.42E+0	5.68E+1	2.61E-1	1.78E+0	1.54E-2	-3.01E+1	2.88E+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	1.46E-2	3.76E-5	8.15E-3	2.28E-2	2.75E-5	1.00E-3	1.73E-5	-8.82E-3	1.50E-2

Output flows and waste categories	Unit	A1	A2	A3	A1-A3	C2	C3	C4	D	Total
HWD	kg	8.37E-6	8.49E-7	9.43E-7	1.02E-5	6.21E-7	2.71E-6	1.68E-8	-7.48E-6	6.04E-6
NHWD	kg	7.02E-2	2.06E-2	9.19E-3	1.00E-1	1.50E-2	7.91E-2	6.16E-2	-2.87E-2	2.27E-1
RWD	kg	3.20E-5	2.26E-6	1.01E-6	3.53E-5	1.65E-6	6.29E-6	9.13E-8	-1.53E-5	2.81E-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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