

# Environmental Profile

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

Ecochain v3.5.64



Product: 3078804 - SiTech+ Trap bend long STSWL 40x1 1/4"  
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<br>B6 Operational energy use B7 Operational water use |     |     |     |     |     |     | C1 De-construction demolition C2 Transport C3 Waste processing<br>C4 Disposal |    |    |    |   |
| Construction process stage                           |    |    |     |     | Benefits and loads beyond the system boundaries                                                                       |     |     |     |     |     |     |                                                                               |    |    |    |   |
| A4 Transport gate to site                            |    |    |     |     | D Reuse- Recovery- Recycling- potential                                                                               |     |     |     |     |     |     |                                                                               |    |    |    |   |
| A5 Assembly / Construction installation process      |    |    |     |     |                                                                                                                       |     |     |     |     |     |     |                                                                               |    |    |    |   |

# Results

| Environmental impact | Unit         | A1       | A2       | A3       | A1-A3    | C2       | C3       | C4       | D         | Total    |
|----------------------|--------------|----------|----------|----------|----------|----------|----------|----------|-----------|----------|
| GWP-total            | kg CO2 eq    | 1.59E-1  | 2.86E-3  | 2.15E-2  | 1.83E-1  | 1.71E-3  | 1.35E-1  | 8.07E-4  | -9.27E-2  | 2.28E-1  |
| GWP-f                | kg CO2 eq    | 2.02E-1  | 2.86E-3  | 1.84E-2  | 2.23E-1  | 1.71E-3  | 8.02E-2  | 8.07E-4  | -1.16E-1  | 1.90E-1  |
| GWP-b                | kg CO2 eq    | -4.38E-2 | 1.74E-6  | 1.55E-3  | -4.22E-2 | 1.04E-6  | 5.46E-2  | 7.04E-7  | 2.38E-2   | 3.61E-2  |
| GWP-luluc            | kg CO2 eq    | 2.27E-4  | 1.01E-6  | 1.55E-3  | 1.78E-3  | 6.06E-7  | 1.06E-5  | 1.35E-8  | -2.05E-4  | 1.58E-3  |
| ODP                  | kg CFC11 eq  | 7.87E-9  | 6.59E-10 | 1.84E-9  | 1.04E-8  | 3.94E-10 | 1.70E-9  | 2.02E-11 | -7.21E-9  | 5.27E-9  |
| AP                   | mol H+ eq    | 8.17E-4  | 1.63E-5  | 7.41E-5  | 9.08E-4  | 9.75E-6  | 7.04E-5  | 4.81E-7  | -3.90E-4  | 5.99E-4  |
| EP-fw                | kg P eq      | 5.18E-6  | 2.35E-8  | 2.85E-7  | 5.49E-6  | 1.41E-8  | 3.13E-7  | 6.23E-10 | -3.27E-6  | 2.55E-6  |
| EP-m                 | kg N eq      | 1.64E-4  | 5.83E-6  | 1.25E-5  | 1.82E-4  | 3.49E-6  | 2.22E-5  | 3.15E-7  | -8.06E-5  | 1.28E-4  |
| EP-T                 | mol N eq     | 1.79E-3  | 6.42E-5  | 1.41E-4  | 1.99E-3  | 3.84E-5  | 2.44E-4  | 1.96E-6  | -9.13E-4  | 1.36E-3  |
| POCP                 | kg NMVOC eq  | 6.99E-4  | 1.84E-5  | 4.37E-5  | 7.61E-4  | 1.10E-5  | 7.53E-5  | 7.35E-7  | -3.38E-4  | 5.10E-4  |
| ADP-mm               | kg Sb eq     | 3.20E-6  | 7.40E-8  | 4.47E-7  | 3.72E-6  | 4.43E-8  | 2.70E-7  | 4.84E-10 | -7.96E-7  | 3.24E-6  |
| ADP-f                | MJ           | 6.19E+0  | 4.39E-2  | 2.42E-1  | 6.48E+0  | 2.63E-2  | 1.98E-1  | 1.48E-3  | -3.14E+0  | 3.56E+0  |
| WDP                  | m3 depriv.   | 1.22E-1  | 1.35E-4  | 8.55E-2  | 2.08E-1  | 8.06E-5  | 3.56E-3  | 6.75E-6  | -8.08E-2  | 1.31E-1  |
| PM                   | disease inc. | 8.33E-9  | 2.58E-10 | 7.42E-10 | 9.33E-9  | 1.54E-10 | 1.11E-9  | 1.01E-11 | -4.98E-9  | 5.63E-9  |
| IR                   | kBq U-235 eq | 5.20E-3  | 1.92E-4  | 2.25E-4  | 5.62E-3  | 1.15E-4  | 6.35E-4  | 6.85E-6  | -3.03E-3  | 3.34E-3  |
| ETP-fw               | CTUe         | 4.41E+0  | 3.56E-2  | 3.81E-1  | 4.83E+0  | 2.13E-2  | 2.45E-1  | 1.23E-3  | -2.32E+0  | 2.77E+0  |
| HTP-c                | CTUh         | 7.61E-11 | 1.27E-12 | 2.03E-11 | 9.77E-11 | 7.59E-13 | 2.99E-11 | 3.55E-14 | -4.43E-11 | 8.41E-11 |
| HTP-nc               | CTUh         | 1.68E-9  | 4.25E-11 | 4.22E-10 | 2.15E-9  | 2.54E-11 | 3.53E-10 | 7.92E-13 | -1.00E-9  | 1.53E-9  |
| SQP                  | Pt           | 5.00E+0  | 3.75E-2  | 4.40E-2  | 5.08E+0  | 2.25E-2  | 1.53E-1  | 3.79E-3  | -7.48E+0  | -2.23E+0 |
| Resource use         | Unit         | A1       | A2       | A3       | A1-A3    | C2       | C3       | C4       | D         | Total    |
| PERE                 | MJ           | 8.46E-1  | 6.30E-4  | 8.36E-1  | 1.68E+0  | 3.77E-4  | 9.19E-3  | 5.75E-5  | -1.28E+0  | 4.15E-1  |
| PERM                 | MJ           | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0         | 0        |
| PERT                 | MJ           | 8.46E-1  | 6.30E-4  | 8.36E-1  | 1.68E+0  | 3.77E-4  | 9.19E-3  | 5.75E-5  | -1.28E+0  | 4.15E-1  |
| PENRE                | MJ           | 6.64E+0  | 4.66E-2  | 2.64E-1  | 6.95E+0  | 2.79E-2  | 2.10E-1  | 1.57E-3  | -3.39E+0  | 3.80E+0  |
| PENRM                | MJ           | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0         | 0        |
| PENRT                | MJ           | 6.64E+0  | 4.66E-2  | 2.64E-1  | 6.95E+0  | 2.79E-2  | 2.10E-1  | 1.57E-3  | -3.39E+0  | 3.80E+0  |
| PET                  | MJ           | 7.49E+0  | 4.72E-2  | 1.10E+0  | 8.64E+0  | 2.83E-2  | 2.20E-1  | 1.62E-3  | -4.67E+0  | 4.22E+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           | 2.23E-3  | 4.97E-6  | 2.03E-3  | 4.26E-3  | 2.97E-6  | 1.13E-4  | 1.82E-6  | -1.63E-3  | 2.75E-3  |

| Output flows and waste categories | Unit | A1      | A2      | A3      | A1-A3   | C2      | C3      | C4      | D        | Total   |
|-----------------------------------|------|---------|---------|---------|---------|---------|---------|---------|----------|---------|
| HWD                               | kg   | 2.05E-6 | 1.12E-7 | 2.35E-7 | 2.40E-6 | 6.72E-8 | 3.54E-7 | 1.77E-9 | -1.47E-6 | 1.35E-6 |
| NHWD                              | kg   | 1.54E-2 | 2.72E-3 | 2.29E-3 | 2.04E-2 | 1.63E-3 | 1.08E-2 | 6.51E-3 | -5.67E-3 | 3.36E-2 |
| RWD                               | kg   | 4.79E-6 | 2.98E-7 | 2.51E-7 | 5.34E-6 | 1.79E-7 | 8.27E-7 | 9.64E-9 | -2.92E-6 | 3.43E-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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