

## Silt Fence Perimeter sediment control

Silt fence barriers are a temporary sediment control device used on job sites as part of a Stormwater Pollution Prevention Plan (SWPPP). GEI Works silt fences are constructed from various weights of synthetic fabric, with or without reinforcement, and stretched between wooden stakes.


WORKS

## Silt Fence

Perimeter sediment control

GEI Works silt fencing is built from $100 \%$ synthetic fibers and is available in multiple strengths. Fencing is available as fabric rolls with or without pre-attached stakes. Stakes and metal posts are available as add-on items.

## Options

- Economy Grade - 50 gram fabric available in rolls of 3 ' by 100 ' with II, I3, or 17 stakes. Fabric only rolls are $3^{\prime}$ by $1500^{\prime}$.
- Contractor Grade - 70 gram fabric. Rolls of 3' by 100 ' with II, I3, Or 17 stakes. Fabric only rolls are 3 ' by $1500^{\prime}$.
- DOT Grade - 100 gram fabric. Rolls 3 ' by $100^{\prime}$ with II, I3, or 17 stakes. Fabric only rolls $3^{\prime}$ by $1500^{\prime}$.
*Minimum of 25 rolls per order (I pallet).


## Usage

For use on job sites with small drainage areas. Runoff can be a low-level shallow flow but shouldn't exceed 0.5 cfs . Drainage area should not exceed more than I/4 acre per 100 ft . of fence length. Slope length above the silt fence should not be more than 100 ft . (NAHB, 1995) as this can have a negative impact on performance.

## Life Expectancy

Approximately 6 months depending on site conditions. Fabric can be reinforced with wire mesh for increased durability.




## Installation and Placement

Fence post height should be 16 to 34 inches above grade. If standard strength fabric is used in combination with wire mesh, the support posts should be spaced no more than 10 ft . apart. If DOT-grade fabric is used without wire mesh, the posts should be spaced no more than 6 ft . apart.

There should be no gaps in the fence. If a continuos roll is not available, the fabric should overlap from both directions only at stakes or posts with a minimum overlap of 6", then rolled for durability. A trench should be excavated to backfill the bottom of the fabric fence at least 6 " below ground surface to minimize entrainment of stormwater runoff.

## Wooden Stakes

If oak is used, stakes should be at least 5 ft . long and have a minimum diameter of 2 inches. Softer woods like pine should be at least 4 in . diameter.

## Metal Post

When using metal posts instead of wooden stakes, use a minimum weight of 1.00 to $1.33 \mathrm{lb} / \mathrm{linear} \mathrm{ft}$. Metal posts require attachment points like hog rings for fastening the filter fabric using wire ties.

## Maintenance

Silt fence should be inspected at regular intervals, as well as after each rain event. If gaps or tears are found, they should be repaird or replaced immediately.

## Sediment Removal

Sediment should be removed from the fence when it reaches I/3 to $1 / 2$ the height of the fence. Remove sediment more frequently if it is causing noticeable strain on the fabric. When the silt fence is removed, accumulated sediment should also be removed.

## Silt Fence <br> Specifications

Silt Fence with Stakes Specifications

| Model | Fabric | Size | \# of Stakes | Qty/Pallet |
| :---: | :---: | :---: | :---: | :---: |
| Economy-II Stakes | Economy | $100^{\prime} \times 3^{\prime}$ | 11 | 25 |
| Economy-13 Stakes | Economy | $100^{\prime} \times 3^{\prime}$ | 13 | 25 |
| Economy-I7 Stakes | Economy | $100^{\prime} \times 3^{\prime}$ | 17 | 25 |
| Contractor-1I Stakes | Contractor | $100^{\prime} \times 3^{\prime}$ | 11 | 25 |
| Contractor-13 Stakes | Contractor | $100^{\prime} \times 3^{\prime}$ | 13 | 25 |
| Contractor-I7 Stakes | Contractor | $100^{\prime} \times 3^{\prime}$ | 17 | 25 |
| DOT-II Stakes | DOT | $100^{\prime} \times 3^{\prime}$ | 11 | 25 |
| DOT-I3 Stakes | DOT | $100^{\prime} \times 3^{\prime}$ | 13 | 25 |
| DOT-I7 Stakes | DOT | $100^{\prime} \times 3^{\prime}$ | 17 | 25 |

*Available in minimum quantities of 25 rolls (I pallet) per order.

## Silt Fence Fabric Rolls Specifications (without stakes)

| Model | Fabric | Size | Qty/Pallet |
| :---: | :---: | :---: | :---: |
| Economy | Economy | $1500^{\prime} \times 3^{\prime}$ | 12 |
| Contractor | Contractor | $1500^{\prime} \times 3^{\prime}$ | 12 |
| DOT | DOT | $1500^{\prime} \times 3^{\prime}$ | 12 |

Fabric Specifications

| Property | ASTM Test Method | Economy 50 Gram | Contractor 70 Gram | DOT <br> 100 Gram |
| :---: | :---: | :---: | :---: | :---: |
| Weave | n/a | $8 \times 8$ | \| $1 \times 11$ | \\| $1 \times 1$ \| |
| Grab Tensile Strength | ASTM D4632 | 68 lbs | 98.8 lbs | 135 lbs |
| Grab Elongation | ASTM D4632 | 14\% | 27\% | 15\% |
| Mullen Burst | ASTM D3786 | 230 psi | 205 psi | 200 psi |
| Puncture Resistance | ASTM D4833 | 52 lbs | 50 lbs | 50 lbs |
| Trapezoidal Tear | ASTM D4533 | 47 lbs | 52 lbs | 60 lbs |
| Apparent Opening Size | ASTM D 475I | 10 sieve | 40 sieve | 30 sieve |
| Flow Rate | ASTM D449I | $30 \mathrm{gal} / \mathrm{min} / \mathrm{ft}$ | $24.2 \mathrm{gal} / \mathrm{min} / \mathrm{ft}$ | $20 \mathrm{gal} / \mathrm{min} / \mathrm{ft}$ |
| Permittivity | ASTM D449I | 0.03 sec | 0.05 sec | 0.1 sec |
| UV Resistance | ASTM D4355 | 80\%/500 Hrs | 80\%/500 Hrs | 80\%/500 Hrs |

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Toll Free: I-888-703-9889 | Phone: (+I) 772-646-0597 | info@geiworks.com
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