

Standards and Specifications
For
Extruded Sediment Filter Fence (self-supporting)

Definition

Temporary barriers of extruded flexible self-supporting material used to intercept, reduce velocity, and filter surface runoff from disturbed area.

Purpose

Extruded self-supporting filter fences filter sediment from runoff so that deposition of transported sediment can occur. Self-supporting sediment fences can be used to intercept sheet flow only. They cannot be used as velocity checks in ditches or swales, or placed where they will intercept concentrated flow.

Design Criteria

1. Extruded sediment filter fence should be used with caution in areas of rocky soils that may prevent trenching.
2. Extruded sediment filter fence should be placed on or parallel to contours.
3. The length of Extruded sediment filter fence must conform to the following:

Extruded Filter Fence Design Constraints

<u>Slope Steepness</u>	<u>(Maximum)</u> <u>Slope Length</u>	<u>(Maximum)</u> <u>Extruded Filter Fence Length</u>	<u>(Maximum)</u> <u>Stake/Rod Spacing</u>
Flatter than 50:1 (2%)	Unlimited	Unlimited	10.0' on center
50:1 to 10:1 (2-10%)	125 feet	1,000 feet	10.0' on center
10:1 to 5:1 (10-20%)	100 feet	750 feet	8.0' on center
05:1 to 3:1 (20-33%)	60 feet	500 feet	5.0' on center
03:1 to 2:1 (33-50%)	40 feet	250 feet	5.0' on center

4. In areas of less than a 2% slope and sandy soils (USDA general classification system, soil class A) maximum slope length and extruded filter fence length will be unlimited. In these areas, a sediment fence may be the only perimeter control required.

5. Downslope from the extruded sediment filter fence should be undisturbed ground.
Construction Specifications

1. Fence post shall be a minimum of 30 inches long and driven 10" into ground. Fiberglass rods shall be 1/2" (minimum) diameter. Wood post shall be 1 1/2" x 1 1/2" (minimum) square cut or 1 3/4" (minimum) diameter round and shall be of sound quality hardwood. Steel post will be standard T or U section weighing not less than 1.00 pound per linear foot.

2. Fence posts/bracing rods shall be placed down slope directly behind extruded self-supporting filter fence and shall meet the following requirements.

Tensile Strength	175lbs/in (min)	Test: ASTM D3575
Soil Retention effectiveness	90% (min)	Test: ASTM D7351
Flow Rate.	7.5 gal/ft ² (min)	Test: ASTM D4491
Apparent Opening Size	.060 mm (max)	Test: ASTM D4751

3. Where ends of extruded self supporting filter fence come together, they shall be overlapped a minimum of 12" and sealed tight to prevent sediment bypass.

4. Extruded self-supporting filter fence shall be inspected after each rainfall event and maintained when bulges occur or when sediment accumulation reaches 50% of the material height.

Extruded Filter Fence Self-supporting

<u>Slope Steepness</u>	(Maximum) <u>Slope Length</u>	(Maximum) <u>Filter Fence Length</u>	(Maximum) <u>Stake spacing</u>
Less than 50:1	unlimited	Unlimited	10.0 feet
50:1 to 10:1	125 Feet	1,000 Feet	10.0 feet
10:1 to 5:1	100 feet	750 Feet	8.0 feet
5:1 to 3:1	60 Feet	500 Feet	5.0 feet
3:1 to 2:1	40 Feet	250 Feet	5.0 feet
2:1 to and steeper	20 Feet	125 Feet	5.0 feet

Note: In areas of less than 2% slope and sandy soils (USDA General Classification system, soil Class A) maximum slope length and SiltShield length will be unlimited. In these areas a extruded filter fence may be the only perimeter control.

EXTRUDED SEDIMENT FILTER FENCE - RECYCLABLE