

Coco Coir Geotextiles

Sustainable Solutions
for Erosion Control



Coco Earth Harvest Geo Textile Products

- At Coco Earth Harvest, we offer two primary erosion control solutions: **Coco Coir Erosion Mats** and **Coco Coir Erosion Logs**.

- **Erosion Mats:**

Eco-friendly, biodegradable mats designed for broad surface coverage to stabilize soil and support vegetation growth. Ideal for slope stabilization, landscaping, and revegetation projects.

- **Erosion Logs:**

Cylindrical coir fiber structures, perfect for localized erosion control in high-flow areas like riverbanks, shorelines, and steep embankments.

Erosion Mats



Erosion Logs



Applications

Slope Stabilization



Coir mats prevent soil erosion, while logs stabilize slopes by reducing water flow

Shoreline Protection



Mats support vegetation growth; logs control sediment and manage water flow.

Construction Sediment Control



Mats cover soil, logs redirect water and trap sediment on roadsides and construction sites.

Wetland Rehabilitation



Mats aid revegetation; logs stabilize edges and manage water in wetlands and landscaping

Landscaping Projects



Coir mats create visually appealing, stable terrains, while logs define pathways and protect soil



Types of Erosion Control Mats

Product	Dimensions (m)	Weight (g/sq ft)	Rolls/40ft Container	Description
400g Erosion Control Roll	2 x 50	400	400	Great for areas requiring moderate erosion protection, providing a natural layer to stabilize soil without synthetic materials.
700g Erosion Control Roll	2 x 50	700	250	Offers enhanced erosion resistance, ideal for steeper slopes and areas subject to higher water flow.
900g Erosion Control Roll	2 x 50	900	110	Provides maximum density and erosion protection for extreme conditions and high water flow areas.

Installing Coir Erosion Mats



1. Site Preparation

- Clear the area of debris, rocks, and vegetation.
- Grade the soil to a smooth, uniform surface.

2. Anchor Trench

- At the top of the slope, dig a 6-inch deep by 6-inch wide trench.
- Secure the mat's leading edge into the trench, backfill, and compact.

3. Unroll the Mat

- Roll the coir mat downward along the slope, ensuring full soil contact.
- Avoid stretching; the mat should lie loosely against the soil.

4. Securing the Mat

- Anchor the mat using U-shaped metal staples or wooden stakes at regular intervals:
 - Edges and overlaps: 12-inch spacing
 - Center area: 2 to 3 feet spacing, depending on slope steepness

5. Overlapping Edges

- When multiple mats are needed, overlap adjacent edges by at least 6 inches.

6. Bottom Termination

- Secure overlaps with staggered staples to prevent water penetration.
- At the slope's base, anchor the mat in a 6-inch by 6-inch trench to prevent underflow.
- Backfill and compact the trench after securing the mat.

7. Post Installation

- Inspect the installation after rainfall to ensure stability.
- Repair any displaced areas promptly to maintain effectiveness.

Installing Coir Erosion Control Logs



1. Site Preparation

- Remove debris and vegetation from the installation area.
- Level the ground or slope to ensure proper contact with the coir logs.

2. Positioning the Logs

- Place coir logs parallel to the water flow or along the slope.
- Ensure the logs are flush with the ground to prevent undercutting..

3. Anchoring the Logs

- Use wooden stakes spaced 2-3 feet apart along the log's length.
- Drive stakes into the ground on both sides of the log, leaving 4-6 inches exposed.

4. Securing the Logs

- Wrap coir twine around the log and stakes to secure it.
- Ensure tight wrapping to prevent movement during water flow or rain.

5. Overlapping Logs

- When joining multiple logs, overlap the ends by 6-12 inches.
- Secure overlaps with additional stakes and twine for stability.

6. Back Filling and Vegetation

- Backfill soil tightly against the logs to stabilize them.
- Plant vegetation or seeds along and behind the logs to encourage long-term erosion control.

7. Inspection and Maintenance

- Regularly inspect after rainfall to ensure logs remain stable.
- Adjust and resecure as needed to maintain functionality..



Case Study: Sustainable Streambank Stabilization

Project Overview

- **Location:**
 - Backyard streambank subject to severe erosion.
- **Objective:**
 - Stabilize the streambank, prevent soil erosion, and promote vegetation growth using eco-friendly materials.
- **Challenges**
 - Significant erosion from water runoff.
 - Difficulty establishing vegetation on steep slopes.
 - Need for an environmentally friendly solution.
- **Solution**
 - **Coir Logs:** Positioned at the streambank base to block water flow and trap sediment.
 - **Coir Mats:** Covered the slope to stabilize soil and create a base for vegetation growth.

Results Immediate Impact:

- Secured both products with stakes to ensure stability.
- Stabilized the streambank and reduced soil erosion.
- Vegetation Growth: Native plants thrived, creating a natural root system for long-term stability.
- Sustainable Approach: Biodegradable coir materials enhanced the ecosystem without harming the environment.





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