Erosion Control Mats
Effective Erosion Control

Erosion Control mats come in various sizes and woven materials to help with either semi-permanent or temporary erosion control. Coir mats are made from woven coconut coir fibers and are frequently used for soil stabilization, erosion control, and fire mitigation. Rolled erosion control products (RECPs) are some of the strongest and longest lasting options on the market. Mat options last either 4-6 years, 9-24 months, or 6-9 months before they biodegrade, enriching the soil for extended vegetative growth.

- Channel Filtration and Erosion Control
- Hillside and Shoreline Erosion Control
- Slope Stabilization
- Soil Stabilization
- Stream Bank Restoration
- Wetland Restoration

Erosion Control Mats	
Semi-Permanent Control (4-6 years)	Coir Mat 40 (4-6 yr) Coir Mat 70 (4-6 yr) Coir Mat 90 (4-6 yr)
Extended Temporary Control (9-24 months)	Straw Coconut Mat (18-24 months)
Temporary Control (6-9 months)	Jute Mat (6 months) Straw Mat (Up to 12 months) Excelsior Mat

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The semi-permanent coir mats typically provide erosion control for approximately **4 to 6 years,** depending on your area conditions. Coir mats are made with open weaves to allow for reseeding and vegetation both before and after installation. Offering a higher strength design, erosion control mats can accommodate areas with steep slopes and increased water flow.

Semi-Permanent Coir Mat Typical Specifications			
Mat Type	**Coir Mat 40**	**Coir Mat 70**	**Coir Mat 90**
Open Area	65%	50%	39%
Weight	11.8 oz/yds^2 400 g/m^2	20.6 oz/yds^2 700 g/m^3	26.5 oz/yds^2 900 g/m^2
Sizes	6.56 ft x 165 ft 13.1 ft x 165 ft	6.56 ft x 165 ft 13.1 ft x 83 ft 13.1 ft x 165 ft	6.56 ft x 165 ft 13.1 ft x 83 ft 13.1 ft x 165 ft
Recommended Slope	less than 1:1	1:1 or greater	1:1 or greater
Recommended Flow	up to 8 fps	up to 12 fps	up to 16 fps
Shear Stress	3.2 lbs/sq. ft (153 N/sq. m)	4.5 lbs/sq. ft (215 N/sq. m)	5 lbs/sq. ft (239 N/sq. m)



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Temporary Control Mat Specifications

The temporary control mats are designed for shorter term projects or vegetation needs. They are made with coir, straw, jute, and wood materials and are typically used in areas with low slopes and water flows.

Extended Temporary Control Mat (9-24 months)		
Mat Type	**Straw Coconut Mat 400**	**Straw Coconut Mat 400B**
Material	70% Straw 30% Coconut Fiber	70% Straw 30% Coconut Fiber
Netting	Photodegradable Polypropylene	Biodegradable
Mass per Unit Area	9.45 oz/yd² 320.4 oz/m²	10.5 oz/yd² 356.0 oz/m²
Sizes	7.5 ft x 120 ft 8 ft x 112.5 ft	7.5 ft x 120 ft 8 ft x 112.5 ft
Recommended Slope	2:1 to 1:1	2:1 to 1:1
Recommended Flow	8 fps (2.4 m/s)	8 fps (2.4 m/s)
Unvegetated Shear Stress	2.02 lbs/sq. ft. (97 Pa)	2.02 lbs/sq. ft. (97 Pa)

Temporary Control Mats (6-9 months)				
Mat Type	**Jute Mat**	**Straw Mat (Single Net)**	**Straw Mat (Double Net)**	**Excelsior Mat**
Weight	92 lbs 500 g/m²	9 oz/yd² 305.1 g/m²	8 oz./SY 271 g/sq. m	8.3 oz/yd² 281 g/m²
Sizes	4 ft. x225 ft. =100 SY/roll	8 ft. x 112.5 ft. 16 ft. x 112.5 ft. 8 ft. x 562.5 ft. 16 ft. x 562.5 ft.	8 ft. x 112.5 ft. 16 ft. x 112.5 ft. 8 ft. x 562.5 ft. 16 ft. x 562.5 ft.	8 ft x 90 ft 4 ft x 180 ft
Recommended Slope	3:1	3:1 to 2:1	3:1	> 3:1
Recommended Flow	6 fps (1.8 m/s)	6 fps (1.8 m/s)	6 fps (1.8 m/s)	< 6 fps
Recommended Shear Stress	0.45 lbs./sq./ft. (22 N/sq./m.)	1.9 lbs/sq.ft. (91 N/sq.m)	1.8 lbs/sq.ft. (86 N/sq.m)	2.3 lbs/sq. m (110 N/sq.m)

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Coir Mat Fabric

Fabrics used for these coir mats include natural materials such as coconut fibers, wheat straw, wood, and jute. An environmentally sensitive solution to erosion control, each fabric is designed to biodegrade over time. This enriches the soil and extends vegetative growth.

Coir Netting Fabric

The netting material is designed to biodegrade with the mat. Netting usually features an open weave design that allows for seeding both before and after the mat has been installed. Mattress coir is stitched between jute nets, that biodegrade along witht the mat. Straw Coconut mats are stitched between synthetic nets.

Installation

The coconut fiber geotextile should be placed in an area that has been uniformly graded so that the mat comes in complete contact with the soil. It is recommended that a trench should be made at both the top and bottom of your slope to back fill after the mat has been placed. Mats can be installed by unrolling the unit from the top and laying them in the direction of the water flow. It is typically recommended that mats overlap a minimum of six to eight inches. Mats can be secured with staples and/or wooden stakes. After mats have been secured in all areas (open end, secured along the face of the slope), the trenches can be filled with soil.