

Material and Performance Specification Sheet

ECSC-2B Double Net Straw/Coconut Biodegradable Rolled Erosion Control Product

Description: The ECSC-2B is made with uniformly distributed 70% agricultural straw, 30% coconut fiber and two jute nets securely sewn together with biodegradable thread. The tightly compressed blankets are wrapped and include a product label, code and installation guide. The blankets are palletized for easy transportation.

The ECSC-2B has functional longevity of approximately 18 months, but will vary depending on soil and climatic conditions, and is suited for slopes 2:1 to 1:1. ECSC-2B meets Type 3.B specification requirements established by the Erosion Control Technology Council (ECTC) and Federal Highway Administration's (FHWA) FP-03 Section 713.17.

Materials:

Netting – Top and Bottom

Leno Weave Jute
100% Biodegradable

Matrix

70% Agricultural Straw
0.385 lbs/sq yd
208.9 g/m²

30% Coconut Fiber
0.165 lbs/sq yd
89.5 g/m²

Thread

Biodegradable
1.50" stitch spacing

Roll Sizes:

Standards

Width:	7.5 ft (2.3 m)	7.5 ft (2.3 m)
Length:	96.0 ft (29.3 m)	120.0 ft (36.6 m)
Weight $\pm 10\%$:	56.0 lbs(25.4 kg)	70.0 lbs (31.8 kg)
Area:	80 yd ² (66.9 m ²)	100 yd ² (83.6 m ²)
#/Pallet:	16	16

Index Value Properties*:

Property	Test Method	Typical
Mass/Unit Area	ASTM D6475	11.2 oz/yd ² (379.8 g/m ²)
Thickness	ASTM D5199	.33 In (8.4 mm)
Tensile Strength-MD	ASTM D5035	270 lb/ft (3.9 Kn/m)
Elongation-MD	ASTM D5035	4.1 %
Tensile Strength-TD	ASTM D5035	195 lb/ft (2.9 Kn/m)
Elongation-TD	ASTM D5035	4.8 %
Light Penetration	ECTC Guidelines	11.5 %
Water Absorption	ASTM D1117	385 %
* May differ depending upon raw material variations		

Bench-Scale Testing* (NTPEP):

Test Method	Parameters	Results
ECTC Method 2 Rainfall	50mm (2in) / hr-30 min	SLR**=11.36
	100mm (4in) / hr-30 min	SLR**=17.05
	150mm (6in) / hr-30 min	SLR**=25.61
ECTC Method 3 Shear Resistance	Shear at .50 in soil loss	2.21 lb/ft
ECTC Method 4 Germination	Top soil; Fescue; 21 day incubation	575% improvement
*Bench scale tests should not be used for design purposes. **Soil Loss Ratio=Soil Loss Bare Soil/Soil Loss with RECP=1/C-Factor (soil loss is based on regression analysis).		

Design Values:

Property	Value
Manning's N	.015
RUSLE C-Factor	.073
Maximum Permissible Sheer Stress	2.0 psf (96 Pa)