



## Specification Sheet

### BioNet® SC150BN™ Erosion Control Blanket

#### DESCRIPTION

The extended-term double net erosion control blanket shall be a machine-produced mat of 70% agricultural straw and 30% coconut fiber with a functional longevity of up to 18 months. (NOTE: functional longevity may vary depending upon climatic conditions, soil, geographical location, and elevation). The blanket shall be of consistent thickness with the straw and coconut evenly distributed over the entire area of the mat. The blanket shall be covered on the top and bottom sides with a 100% biodegradable woven natural organic fiber netting. The netting shall consist of machine directional strands formed from two intertwined yarns with cross directional strands interwoven through the twisted machine strands (commonly referred to as Leno weave) to form an approximate 0.50 x 1.0 in. (1.27 x 2.54 cm) mesh. The blanket shall be sewn together on 1.50 inch (3.81 cm) centers with degradable thread. The blanket shall be manufactured with a colored thread stitched along both outer edges (approximately 2-5 inches [5-12.5 cm] from the edge) as an overlap guide for adjacent mats.

The SC150BN shall meet Type 3.B specification requirements established by the Erosion Control Technology Council (ECTC) and Federal Highway Administration's (FHWA) FP-03 Section 713.17

#### Material Content

<b>Matrix</b>	70% Straw Fiber	0.35 lbs/sq yd (0.19 kg/sm)
	30% Coconut Fiber	0.15 lbs/sq yd (0.08 kg/sm)
<b>Netting</b>	Top: Leno woven 100% biodegradable jute	9.35 lb/1000 sq ft (4.5 kg/100 sm)
	Bottom: 100% biodegradable organic jute	7.7 lb/1000 sq ft (3.76 kg/100 sm)
<b>Thread</b>	Biodegradable	

#### Standard Roll Sizes

<b>Width</b>	6.67 ft (2.03 m)	8.0 ft (2.4 m)	16 ft (4.87 m)
<b>Length</b>	108 ft (32.92 m)	112 ft (34.14 m)	112 ft (34.14 m)
<b>Weight ± 10%</b>	52.22 lbs (23.69 kg)	65.28 lbs (29.6 kg)	130.5 lbs (59.2 kg)
<b>Area</b>	80 sq yd (66.9 sm)	100 sq yd (83.61 sm)	200 sq yd (167.22 sm)
	Leno weave top only	Leno top and bottom	Leno top and bottom



Index Property	Test Method	Typical
<b>Thickness</b>	ASTM D6525	0.25 in. (6.35 mm)
<b>Resiliency</b>	ECTC Guidelines	86%
<b>Water Absorbency</b>	ASTM D1117	311%
<b>Mass/Unit Area</b>	ASTM D6475	8.32 oz/sy (282.9 g/sm)
<b>Swell</b>	ECTC Guidelines	46%
<b>Smolder Resistance</b>	ECTC Guidelines	Yes
<b>Stiffness</b>	ASTM D1388	0.42 oz-in
<b>Light Penetration</b>	ASTM D6567	7.6%
<b>Tensile Strength - MD</b>	ASTM D6818	201.6 lbs/ft (2.99 kN/m)
<b>Elongation - MD</b>	ASTM D6818	13.4%
<b>Tensile Strength - TD</b>	ASTM D6818	164.4 lbs/ft (2.44 kN/m)
<b>Elongation - TD</b>	ASTM D6818	14.2%
<b>Biomass Improvement</b>	ASTM D7322	641 %

#### Design Permissible Shear Stress

<b>Unvegetated Shear Stress</b>	2.10 psf (100 Pa)
<b>Unvegetated Velocity</b>	8.00 fps (2.44 m/s)

#### Slope Design Data: C Factors

	Slope Gradients (S)		
	≤ 3:1	3:1 - 2:1	≥ 2:1
<b>Slope Length (L)</b>			
≤ 20 ft (6 m)	0.001	0.029	0.063
20-50 ft	0.051	0.055	0.092
≥ 50 ft (15.2 m)	0.10	0.080	0.120

#### Roughness Coefficients - Unveg.

Flow Depth	Manning's n
≤ 0.50 ft (0.15 m)	0.050
0.50 - 2.0 ft	0.050-0.018
≥ 2.0 ft (0.60 m)	0.018



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