



# Specification Sheet

## BioNet® S150BN™ Erosion Control Blanket

### DESCRIPTION

The short-term double net erosion control blanket shall be a machine-produced mat of 100% agricultural straw with a functional longevity of up to 12 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 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 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 a 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 S150BN shall meet Type 2.D specification requirements established by the Erosion Control Technology Council (ECTC) and Federal Highway Administration's (FHWA) FP-03 Section 713.17



### Material Content

Matrix	100% Straw Fiber	0.5 lbs/sq yd (0.27 kg/sm)
Netting	Top: Leno woven 100% biodegradable organic 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)
Thread	Biodegradable	

### Standard Roll Sizes

Width	6.67 ft (2.03 m)	8.0 ft (2.4 m)	16.0 ft (4.87 m)
Length	108 ft (32.92 m)	112 ft (34.14 m)	112 ft (34.14 m)
Weight ± 10%	52.22 lbs (23.69 kg)	65.28 lbs (29.6 kg)	130.5 lbs (59.2 kg)
Area	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
Thickness	ASTM D6525	0.23 in. (5.84 mm)
Resiliency	ECTC Guidelines	80.5%
Water Absorbency	ASTM D1117	428%
Mass/Unit Area	ASTM D6475	8.71 oz/sy (296 g/sm)
Swell	ECTC Guidelines	15%
Smolder Resistance	ECTC Guidelines	Yes
Stiffness	ASTM D1388	6.23 oz-in
Light Penetration	ASTM D6567	15.3%
Tensile Strength - MD	ASTM D6818	188.4 lbs/ft (2.79 kN/m)
Elongation - MD	ASTM D6818	11.2%
Tensile Strength - TD	ASTM D6818	157.2 lbs/ft (2.33 kN/m)
Elongation - TD	ASTM D6818	13.5%
Biomass Improvement	ASTM D7322	549%

### Design Permissible Shear Stress

Unvegetated Shear Stress	1.85 psf (88 Pa)
Unvegetated Velocity	6.00 fps (1.83 m/s)

### Slope Design Data: C Factors

Slope Length (L)	Slope Gradients (S)		
	≤ 3:1	3:1 - 2:1	≥ 2:1
≤ 20 ft (6 m)	0.00014	0.039	N/A
20-50 ft	0.01	0.070	N/A
≥ 50 ft (15.2 m)	0.02	0.100	N/A

### Roughness Coefficients - Unveg.

Flow Depth	Manning's n
≤ 0.50 ft (0.15 m)	0.055
0.50 - 2.0 ft	0.055-0.021
≥ 2.0 ft (0.60 m)	0.021



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