

Specification Sheet - BioNet® C125BN™ Erosion Control Blanket

DESCRIPTION

The long-term double net erosion control blanket shall be a machine-produced mat of 100% coconut fiber with a functional longevity of up to 24 months. (NOTE: functional longevity may vary depending upon climatic conditions, soil, geographical location, and elevation). The blanket shall be of consistent thickness with the coconut evenly distributed over the entire area of the mat. The blanket shall be covered on the top and bottom sides with 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 the twisted machine strands (commonly referred to as Leno weave) to form an approximate 0.50×1.0 in $(1.27 \times 2.54 \text{ cm})$ 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 C125BN shall meet Type 4 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% Coconut Fiber	0.5 lbs/sq yd (0.27 kg/sm)	
Netting	Leno Woven 100% biodegradable jute	9.3 lbs/1000 sq ft (4.5 kg/100 sm)	
	100% Biodegradable jute	7.7 lb/1000 sq ft (3.76 kg/100 sm)	
Thread	Biodegradable		

Standard Roll Sizes			
Width	6.67 (2.03 m)	8.0 ft (2.4 m)	
Length	108 ft (32.92 m)	112 ft (34.14 m)	
Weight ± 10%	52.22 lbs (23.69 kg)	65.25 lbs (29.61 kg)	
Area	80 sq yd (66.9 sm)	100 sq yd (83.61 sm)	
	Leno weave top only	Leno weave top and bottom	

Index Property	Test Method	Typical
Thickness	ASTM D6525	0.23 in. (5.84 mm)
Resiliency	ECTC Guidelines	85%
Water Absorbency	ASTM D1117	365%
Mass/Unit Area	ASTM 6475	9.79 oz/sy (333 g/sm)
Swell	ECTC Guidelines	40%
Smolder Resistance	ECTC Guidelines	Yes
Stiffness	ASTM D1388	0.11 oz-in
Light Penetration	ASTM D6567	16.2%
Tensile Strength - MD	ASTM D6818	206.4 lbs/ft (3.06 kN/m)
Elongation - MD	ASTM D6818	15.3%
Tensile Strength - TD	ASTM D6818	145.2 lbs/ft (2.15 kN/m)
Elongation - TD	ASTM D6818	12.9%
Biomass Improvement	ASTM 7322	473%

Design Permissible Shear Stress		
Unvegetated Shear Stress	2.35 psf (112 Pa)	
Unvegetated Velocity	10.0 fps (3.05 m/s)	

Slope Design Data: C Factors			
Slope Gradients (S)			
Slope Length (L)	≤ 3:1	3:1 - 2.1	≥ 2:1
≤ 20 ft (6 m)	0.0001	0.018	0.050
20-50 ft	0.003	0.040	0.060
≥ 50 ft (15.2 m)	0.007	0.070	0.070

Roughness Coefficients - Unveg.		
Flow Depth	Manning's n	
≤ 0.50 ft (0.15 m)	0.022	
0.50 - 2.0 ft	0.022-0.014	
≥ 2.0 ft (0.60 m)	0.014	



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