



Material and Performance Specification Sheet

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A **tesar** Company

C125BN Erosion Control Blanket

The long-term double net 100% biodegradable 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 top 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 1.00 (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 C125BN shall meet requirements established by the Erosion Control Technology Council (ECTC) Specification and the US Department of Transportation, Federal Highway Administration's (FHWA) *Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects, FP-03 Section 713.17 as a type 4 Long-term Erosion Control Blanket*.

The C125BN is also available with the DOT System™, which consists of installation staple patterns clearly marked on the erosion control blanket with environmentally safe paint. 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.

Material Content		
Matrix	100% Coconut Fiber	0.5 lbs/yd ² (0.27 kg/m ²)
Nettings	Top- Leno woven 100% biodegradable organic jute fiber	9.3 lb/1000 ft ² (4.5 kg/100 m ²)
	Bottom – 100% biodegradable organic jute fiber	7.7 lb/1000 ft ² (3.76 kg/100 m ²)
Thread	Biodegradable	

C125BN is available in the following standard roll sizes:

Width	6.67 ft (2.03 m)
Length	108 ft (32.92 m)
Weight ± 10%	52.22 lbs (23.69 kg)
Area	80.0 yd ² (66.9 m ²)

Index Value Properties:

Property	Test Method	Typical
Thickness	ASTM D6525	0.28 in (7.11 mm)
Resiliency	ECTC Guidelines	85%
Water Absorbency	ASTM D1117	365%
Mass/Unit Area	ASTM 6475	8.83 oz/yd ² (300 g/m ²)
Swell	ECTC Guidelines	40%
Smolder Resistance	ECTC Guidelines	Yes
Stiffness	ASTM D1388	0.11 oz-in
Light Penetration	ECTC Guidelines	17.7%
Tensile Strength –MD	ASTM D6818	141.6 lbs/ft (2.1 kN/m)
Elongation – MD	ASTM D6818	14%
Tensile Strength – TD	ASTM D6818	222 lbs/ft (3.29 kN/m)
Elongation – TD	ASTM D6818	14.3%

Bench Scale Testing* (NTPEP):

Test Method	Parameters	Results
ECTC Method 2 Rainfall	50 mm (2 in)/hr for 30 min	SLR** = 6.83
	100mm (4 in)/hr for 30 min	SLR** = 10.76
	150 mm (6 in)/hr for 30 min	SLR** = 16.95
ECTC Method 3 Shear Resistance	Shear at 0.50 inch soil loss	3.13 lbs/ft²
ECTC Method 4 Germination	Top Soil, Fescue, 21 day incubation	401% improvement of biomass

* Bench Scale tests should not be used for design purposes

** Soil Loss Ratio = Soil loss with Bare Soil/Soil Loss with RECP (soil loss is based on regression analysis)

Performance Design Values:

Maximum Permissible Shear Stress	
Unvegetated Shear	2.35 lbs/ft ² (112 Pa)
Unvegetated Velocity	10.00 ft/s (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

Product Participant of:

