MATERIAL PROPERTY DATA SHEET



BioNet[®] C125BN™

Long Term • Double Net • Coconut Matrix • Biodegradable • Erosion Control Blanket

DESCRIPTION

C125BN Long Term Erosion Control Blanket consists entirely of coconut fibers manufactured into a matrix of uniform thickness and coverage. The coconut matrix is confined by a biodegradable, jute/scrim net on top and bottom, mechanically (stitch) bound on two-inch centers with a biodegradable, cotton thread. C125BN is intended for slope and channel erosion control applications requiring up to thirty-six months of functional longevity. The material is fully degradable. The net, thread, and the fiber matrix is biodegradable. Actual field longevity is dependent on soil and climatic conditions.



Each roll of C125BN is made in the USA and manufactured under Western Green's Quality Assurance Program to ensure a continuous distribution of fibers and consistent thickness.

Material Content							
Matrix	Coconut						
Netting	Top & Bottom Net: Jute Scrim, Double Net Biodegradable, Leno Weave						
Thread	Biodegradab	le Cotton or Ray	on				
Standard Roll Sizes							
Width	8 ft	(2.4 m)	16 ft	(4.9 m)			
Length	112 ft	(34.1 m)	563 ft	(171.0 m)			
Weight ± 10%	56.3 lb	(25.6 kg)	563 lb	(256.0 kg)			
Area	100 sy	(83.6 m ²)	1000 SY	(836.0 m ²)			

Material available in custom roll sizes

	Approvals & Classification
Classification	FHWA: Type 4.B / ECTC: Type 4.B
TTI Approvals	Class 1 Type B,D
NTPEP Number	ECP-2020-01-013

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Index Property Test Method Typical **ASTM D6525** 0.28 in. Thickness (7 mm) Mass/Unit Area ASTM D6566 9.0 oz/sy (305 g/sm) Tensile Strength – MD ASTM D6818 210 lbs/ft (3.1 kN/m) Tensile Strength – TD ASTM D6818 190 lbs/ft (2.8 kN/m) Elongation - MD ASTM D6818 15% Elongation - TD ASTM D6818 15% Density/Specific Gravity D792 N/A **Light Penetration** ASTM D6567 15% **Biomass Improvement ASTM D7322** 500% Water Absorption ASTM D1117 300%

Design Parameters						
Property	Unvegetated	Vegetated ³				
RUSLE C Factor ²	0.02	N/A				
Slope Maximum Gradient ¹	1H:1V	N/A				
Permissible Shear Stress ²	2.5 psf (120 Pa)	N/A				
Permissible Velocity ²	9.0 fps (2.7 m/s)	N/A				
Manning's n Roughness (HEC-15)						

Walling S II Roughless (HEC-15)						
τ_{mid}	τ_{upper}					
0.025	0.023					
	$ au_{mid}$	τ _{mid} τ _{upper}				

1 Maximum Gradient a recomendation for typical insllations.

2 Hydraulic thresholds compliant with ASTM D6459/D6460 but generalized for typical applications.

3 Vegetated values dependent on established stand of vegetation

Rev. 4.2023 Scan for additional and updated product information, or <u>click here.</u>



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