



# Specification Sheet

## BioNet® C700BN™

### Erosion Control Blanket

#### DESCRIPTION

The long-term double-net Erosion Control Blanket (ECB) shall be a 100% biodegradable, machine-produced mat fabricated in the U.S.A. of coconut (coir) fiber with a functional longevity of greater than 36 months and permissible shear stress exceeding 2.25 psf. (**NOTE:** Functional longevity may vary depending upon climatic conditions, soil, geographical location, and elevation.) The blanket shall be of consistent thickness with the coconut fiber evenly distributed over the entire area of the mat. The blanket shall be covered on the top side with a 60 x 50 woven coir fiber netting with mesh openings not to exceed .75 in. x .75 in. (1.90 x 1.90 cm). The blanket shall be covered on the bottom side with 100% biodegradable woven natural fiber jute netting. The jute netting shall form an approximate 0.50 in. x 1.0 in. (1.27 x 2.54 cm) mesh. The blanket shall be sewn together on 1.50 in. (3.81 cm) centers with degradable thread.

The C700BN 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*.



Index Property	Test Method	Typical
Thickness	ASTM D6525	0.56 in. (14.2 mm)
Water Absorbency	ASTM D1117	186.8%
Mass/Unit Area	ASTM 6475	26.61 oz/sy (903 g/sm)
Swell	ECTC Guidelines	35%
Lignin Content	TAPPI TM222	32.8%
Light Penetration	ASTM D6567	14.9%
Tensile Strength - MD	ASTM D6818	1271 lbs/ft (18.84 kN/m)
Elongation - MD	ASTM D6818	38.7%
Tensile Strength - TD	ASTM D6818	834 lbs/ft (12.34 kN/m)
Elongation - TD	ASTM D6818	41.4%

Maximum Permissible Shear Stress	
Unvegetated Shear Stress	2.35 psf (112 Pa)
Unvegetated Velocity	10 fps (3.05 m/s)

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

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

Material Content		
Matrix	100% Coconut Fiber	0.5 lb/sy (270 g/sm)
Netting	100% biodegradable 60 x 50 coir netting	143 lb/1000 sf (700 g/sm)
	100% biodegradable jute netting	7.7 lb/1000 sf (37.6 g/sm)
Thread	Biodegradable	

Standard Roll Sizes	
Width	8.0 ft (2.4 m)
Length	45 ft (13.7 m)
Weight ± 10%	74.4 lbs (33.75 kg)
Area	40 sy (33.45 sm)



Western Green  
4609 E. Boonville-New Harmony Rd.  
Evansville, IN 47725

nagreen.com  
800-772-2040

©2019, North American Green is a registered trademark from Western Green. Certain products and/or applications described or illustrated herein are protected under one or more U.S. patents. Other U.S. patents are pending, and certain foreign patents and patent applications may also exist. Trademark rights also apply as indicated herein. Final determination of the suitability of any information or material for the use contemplated, and its manner of use, is the sole responsibility of the user. Printed in the U.S.A.