



## 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*.

### Material Content

<b>Matrix</b>	100% Coconut Fiber	0.5 lb/sy (270 g/sm)
	100% biodegradable 60 x 50 coir netting	143 lb/1000 sf (700 g/sm)
<b>Netting</b>	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)
<b>Thread</b>	Biodegradable	

### Standard Roll Sizes

<b>Width</b>	8.0 ft (2.4 m)
<b>Length</b>	45 ft (13.7 m)
<b>Weight ± 10%</b>	74.4 lbs (33.75 kg)
<b>Thread</b>	40 sy (33.45 sm)



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

### Maximum Permissible Shear Stress

<b>Unvegetated Shear Stress</b>	2.35 psf (112 Pa)
<b>Unvegetated Velocity</b>	10 fps (3.05 m/s)

### Slope Design Data: C Factors

	Slope Gradients (S)		
	≤ 3:1	3:1-2:1	≥ 2:1
<b>Slope Length (L)</b>			
≤ 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



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Tensar International Corporation warrants that at the time of delivery the product furnished hereunder shall conform to the specification stated herein. Any other warranty including merchantability and fitness for a particular purpose, are hereby executed. If the product does not meet specifications on this page and Tensar is notified prior to installation, Tensar will replace the product at no cost to the customer. **This product specification supersedes all prior specifications for the product described above and is not applicable to any products shipped prior to January 1, 2012.**

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