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## **Material and Performance Specification**

## **ECC-2B™** Double Net Coconut Biodegradable Rolled Erosion Control Product

## **Description:**

The ECC-2B™ is made with uniformly distributed 100% coconut fiber and two organic jute nets securely sewn together with biodegradable thread. The tightly compressed blankets are wrapped and include a product label, code and installation guide. The blankets are palletized for easy transportation.

The ECC-2B™ has functional longevity of approximately 24 months, but will vary depending on soil and climatic conditions, and is suitable for slopes 1:1 and medium to high flow channels. The ECC-2B™ meets Type 4 specification requirements established by the Erosion Control Technology Council (ECTC) and Federal Highway Administration's (FHWA) FP-03 Section 713.17.

Matrix:		1			2		
	100%	Coconut					
Netting:	Т	уре					Net Color
Top: O	Organic Leno Weave Jut	te					Natural
Middle: N	lone						
Bottom: O	Organic Leno Weave Jut	te					
<b>Net Opening:</b>	1	Гор		Mic	ddle		Bottom
	0.5'	' x 1.0"					0.5" x 1.0"
Thread:	T	уре		Co	lor		
	Biodegrada	ble Thread		Nat	ural		
Roll Sizes:	Sta	ndard		"A"	Size		Mega 🔨
Width:	8 ft	2.4 m		4 ft	1.2 m	16	ft 4.9 m
Length:	112.5 ft	34.3 m		225 ft	68.6 m	112.5	ft 34.3 m
Weight*:	60 lbs	27.2 kg		60 lbs	27.2 kg	120	lbs 54.4 kg
Area:	100 yd²	83.6 m <sup>2</sup>		100 yd <sup>2</sup>	83.6 m <sup>2</sup>	200	yd² 167.2 m²
#/Pallet:		20			5		20
*Weight at time of	f manufacturing.						

<b>Index Value Properties</b>	*:		
Property	Test Method	Ту	pical
Mass/Unit Area	ASTM D6475	9.50 oz/yd <sup>2</sup>	322.1 g/m2
Thickness	ASTM D6525	0.23 in	5.84 mm
Tensile Strength-MD	ASTM D6818	223 lb/ft	3.25 kN/m
Elongation-MD	ASTM D6818	11 %	
Tensile Strength-TD	ASTM D6818	150 lb/ft	2.19 kN/m
Elongation-TD	ASTM D6818	16.0 %	
Light Penetration	ASTM D6567	13 %	
Density / Specific Gravity	ASTM D792	N/A g/cm <sup>3</sup>	
Water Absorption	ASTM D1117	340 %	

<sup>\*</sup>May differ depending upon raw material variations

Slope Performance Design Values*:							
Property	Test Me	thod	Value				
C-Factors	ASTM D	6459	0.04				
Slope Length (L)	≤ 3:1	3:1-2:1	≥ 2:1				
< 50 ft (15 m)	0.040	0.053	0.102				
50 ft – 100 ft	0.060	0.084	0.120				
>100 ft (30 m)	0.094	0.114	0.134				

<sup>\*</sup>Large-Scale Results obtained by 3<sup>rd</sup> Party GAI Accredited Independent Laboratory

Bench-Scale Testing* (NTPEP***):					
Test Method	Parameters	Results			
	50mm (2in) / hr-30 min	SLR**=14.16			
ECTC Method 2 Rainfall	100mm (4in) / hr-30 min	SLR**=18.25			
	150mm (6in) / hr-30 min	SLR**=23.24			
ECTC Method 3 Shear Resistance	Shear at .50 in soil loss	2.76 lb/ft <sup>2</sup>			
ECTC Method 4 Germination To	p soil; Fescue; 21 day incub	ation 501 %			
*Bench scale tests should not be	used for design purposes.				
**Soil Loss Ratio=Soil Loss Bare So	oil/Soil Loss with RECP=1/C-	-Factor			
***The preceding test data excer of AASHTO, however, this does no the product, material or device by	ot constitute endorsement o	•			

Channel Performance D							
Property	Test Method		Value				
Unvegetated Shear Stress	ASTM D 6460	2.25	lbs/ft <sup>2</sup>	107.73	Pa		
Unvegetated Velocity	ASTM D 6460	9.0	ft/s	2.74	m/s		
Vegetated Shear Stress	NA	N/A	lbs/ft <sup>2</sup>	N/A	Pa		
Vegetated Velocity	NA	N/A	ft/s	N/A	m/s		
Manning's N (Value Represe	ents a Range)		0.02	25			

<sup>\*</sup>Large-Scale Results obtained by 3<sup>rd</sup> Party GAI Accredited Independent Laboratory