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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.B 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			N/A					
Netting:	Туре					Net Color	Net Color		
Top:	op: Organic Leno Weave Jute					Natural	Natural		
Middle:	None								
Bottom:	Organic Leno Weave Jute	9							
<b>Net Opening:</b>	ng: Top			Middle		Bottom	Bottom		
	0.5"	x 1.0"		N/A		0.5" x 1.0"			
Thread:	Ту	ype		Color					
	Biodegradable Thread			Natural					
<b>Roll Sizes:</b>	Star	ndard	•	"A" Size		Mega			
Width:	8 ft	2.4 m	4.00	ft 1.2	m	16 ft 4.9	9 m		
Length:	112.5 ft 3	34.3 m	225	ft 68.6	m	112.5 ft 34.3	3 m		
Weight*:	60 lbs 2	27.2 kg	60	lbs 27.2	kg	120 lbs 54.4	4 kg		
Area:	100 yd² 8	83.6 m <sup>2</sup>	100	yd² 83.6	m <sup>2</sup>	200 yd² 167.:	2 m <sup>2</sup>		
#/Pallet:	2	20		9		20			

<sup>\*</sup>Weight at time of manufacturing.

Index Value Properties*:						
Property	Test Method	Typical				
Mass/Unit Area	ASTM D6475	9.50	oz/yd²	322.1 g/m	2	
Thickness	ASTM D6525	0.23	in	5.84 mm		
Tensile Strength-MD	ASTM D6818	223.00	lb/ft	3.25 kN/i	n	
Elongation-MD	ASTM D6818	11	%			
Tensile Strength-TD	ASTM D6818	150.00	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 Method ASTM D6459		Value			
C-Factors			0.04			
Slope Length (L)	≤ 3:1	3:1-2:1	≥ 2:1			
< 50 ft (15 m)	0.035	0.045	0.095			
50 ft – 100 ft	0.045	0.060	0.105			
>100 ft (30 m)	0.053	0.070	0.115			

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

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	

<sup>\*\*\*</sup>The preceding test data excerpts were reproduced with the permission of AASHTO, however, this does not constitute endorsement or approval of the product, material or device by AASHTO

Channel Performance Design Values*:							
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 Represents a Range) 0.025							

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