

## **Material and Performance Specification**

# ECSC-2<sup>™</sup> Double Net Straw/Coconut Rolled Erosion Control Product

#### **Description:**

The ECSC-2<sup>™</sup> is made with uniformly distributed 70% agricultural straw, 30% coconut fiber and two polypropylene nets securely sewn together with degradable thread. The tightly compressed blankets are wrapped and include a product label, code and installation guide. The blankets are palletized for easy transportation. The ECSC-2<sup>™</sup> has functional longevity of approximately 24 months, but will vary depending on soil and climatic conditions, and is suitable for slopes 2:1 to 1:1 and low to medium flow channels. The ECSC-2<sup>™</sup> meets Type 3.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		
	70%	Straw	30% C	oconut		
Netting:	Ту	'pe			Net C	Color
Top: Ligh	tweight Photodegrad	able Polypropylene			Gre	en
Middle: Non	e					
Bottom: Med	lium weight UV Stabi	lized Polypropylene				
Net Opening:	Т	op	Mi	ddle	Bott	om
	0.5" :	x 0.5"	N	/A	0.75" x	0.75"
Thread:	Ту	/pe	Co	olor		
	Degradable	e Thread	W	hite		
Roll Sizes:	Star	ndard	"A"	Size	Me	ga
Width:	8 ft	2.4 m	4.00 ft	1.2 m	16 ft	4.9 m
Length:	112.5 ft 3	34.3 m	225 ft	68.6 m	112.5 ft	34.3 m
Weight*:	57 lbs 2	25.9 kg	57 lbs	25.9 kg	114 lbs	51.7 kg
Area:	100 yd <sup>2</sup> 8	33.6 m <sup>2</sup>	100 yd <sup>2</sup>	83.6 m <sup>2</sup>	200 yd <sup>2</sup>	167.2 m <sup>2</sup>
#/Pallet:	2	.5		9	2!	5

\*Weight at time of manufacturing.

Index Value Properties*:					
Property	Test Method	Typical			
Mass/Unit Area	ASTM D6475	8.00 oz/yd <sup>2</sup>	271.2 g/m2		
Thickness	ASTM D6525	0.30 in	7.62 mm		
Tensile Strength-MD	ASTM D6818	178.00 lb/ft	2.60 kN/m		
Elongation-MD	ASTM D6818	31 %			
Tensile Strength-TD	ASTM D6818	148.00 lb/ft	2.16 kN/m		
Elongation-TD	ASTM D6818	22.4 %			
Light Penetration	ASTM D6567	13 %			
Density / Specific Gravity	ASTM D792	N/A g/cm <sup>3</sup>			
Water Absorption	ASTM D1117	436 %			

\*May differ depending upon raw material variations

pe Performance De	sign Values*:		
Property	Test Me	thod	Value
C-Factors	ASTM D	6459	0.01
Slope Length (L)	≤ 3:1	3:1-2:1	≥ 2:1
< 50 ft (15 m)	0.015	0.020	0.065
50 ft – 100 ft	0.020	0.035	0.090
>100 ft (30 m)	0.025	0.050	0.110

\*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**=8.52			
ECTC Method 2 Rainfall	100mm (4in) / hr-30 min	SLR**=11.01			
	150mm (6in) / hr-30 min	SLR**=14.28			
FOTO MARKA I 2 Characterization	Character FO is sailless	2 4 5 11 /512			

ECTC Method 3 Shear Resistance Shear at .50 in soil loss 2.16 lb/ft<sup>2</sup> ECTC Method 4 Germination Top soil; Fescue; 21 day incubation 503 % \*Bench scale tests should not be used for design purposes.

\*\*Soil Loss Ratio=Soil Loss Bare Soil/Soil Loss with RECP=1/C-Factor

\*\*\*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	Ра		
Unvegetated Velocity	ASTM D 6460	8.0	ft/s	2.44	m/s		
Vegetated Shear Stress	NA	N/A	lbs/ft <sup>2</sup>	N/A	Ра		
Vegetated Velocity	NA	N/A	ft/s	N/A	m/s		
Manning's N (Value Represe		0.02	29				

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

The values presented are for guidance purposes and do not constitute the practice of engineering. East Coast Erosion Blankets LLC (ECEB) ascertains that at the time of manufacture, all information presented herein is accurate and reliable and falls within the ECEB manufacturing product specification variances. If the product does not meet the stated values and ECEB is notified in writing prior to installation, the product will be replaced at no cost to the purchaser. ECEB will not be held liable for any type of damage or losses, directly, or indirectly for this product. Current revision supersedes all previous versions for this product.



## Proud Member and Participant of: www.eastcoasterosion.com 443 Bricker Road Bernville, PA 19506 1.800.582.4005 +1.610.488.8496 Fax +1.610.488.8494

**Material and Performance Specification** 

# **ECSC-2B<sup>™</sup>** Double Net Straw/Coconut Biodegradable Rolled Erosion Control Product

### **Description:**

The ECSC-2B<sup>™</sup> is made with uniformly distributed 70% agricultural straw, 30% 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 ECSC-2B<sup>™</sup> has functional longevity of approximately 18 months, but will vary depending on soil and climatic conditions, and is suitable for slopes 2:1 to 1:1 and low to medium flow channels. The ECSC-2B<sup>™</sup> meets Type 3.B specification requirements established by the Erosion Control Technology Council (ECTC) and Federal Highway Administration's (FHWA) FP-03 Section 713.17.

1	2	
70% Straw	30% Coconut	
Туре		Net Color
nic Leno Weave Jute		Natural
nic Leno Weave Jute		
Тор	Middle	Bottom
0.5" x 1.0"	N/A	0.5" x 1.0"
Туре	Color	
Biodegradable Thread	Natural	
Standard	"A" Size	Mega
8 ft 2.4 m	4.00 ft 1.2 m	16 ft 4.9 m
112.5 ft 34.3 m	225 ft 68.6 m	112.5 ft 34.3 m
60 lbs 27.2 kg	60 lbs 27.2 kg	120 lbs 54.4 kg
100 yd <sup>2</sup> 83.6 m <sup>2</sup>	100 yd <sup>2</sup> 83.6 m <sup>2</sup>	200 yd <sup>2</sup> 167.2 m <sup>2</sup>
20	9	20
	Type hic Leno Weave Jute hic Leno Weave Jute Top 0.5" x 1.0" Type Biodegradable Thread Standard 8 ft 2.4 m 112.5 ft 34.3 m 60 lbs 27.2 kg 100 yd <sup>2</sup> 83.6 m <sup>2</sup>	Type Middle   Top Middle   N/A Color   Biodegradable Thread Natural   Standard "A" Size   8 ft 2.4 m 4.00 ft 1.2 m   112.5 ft 34.3 m 225 ft 68.6 m   60 lbs 27.2 kg 60 lbs 27.2 kg   100 yd <sup>2</sup> 83.6 m <sup>2</sup> 100 yd <sup>2</sup> 83.6 m <sup>2</sup>

\*Weight at time of manufacturing.

Index Value Properties*:					
Property	Test Method	Typical			
Mass/Unit Area	ASTM D6475	9.00 o	z/yd²	305.1	g/m2
Thickness	ASTM D6525	0.28 ir	า	7.11	mm
Tensile Strength-MD	ASTM D6818	204.00 lk	o/ft	2.98	kN/m
Elongation-MD	ASTM D6818	14 %	0		
Tensile Strength-TD	ASTM D6818	134.00 lk	o/ft	1.96	kN/m
Elongation-TD	ASTM D6818	16.3 %	0		
Light Penetration	ASTM D6567	12 %	0		
Density / Specific Gravity	ASTM D792	N/A g	/cm³		
Water Absorption	ASTM D1117	361 %	0		
*May differ depending upon raw material variations					

#### Slope Performance Design Values\*:

Slope Ferrormance Design values .						
Property	Test Me	thod	Value			
C-Factors	ASTM D	6459	0.05			
Slope Length (L)	≤ 3:1	3:1-2:1	≥ 2:1			
< 50 ft (15 m)	0.050	0.060	0.110			
50 ft – 100 ft	0.059	0.075	0.130			
>100 ft (30 m)	0.062	0.090	0.150			

\*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**=11.89		
ECTC Method 2 Rainfall	100mm (4in) / hr-30 min	SLR**=13.60		
	150mm (6in) / hr-30 min	SLR**=15.50		
ECTC Method 3 Shear Resistance	Shear at .50 in soil loss	2.46 lb/ft <sup>2</sup>		
ECTC Method 4 Germination To	p soil; Fescue; 21 day incub	ation 671%		
*Bench scale tests should not be	used for design purposes.			

\*\*Soil Loss Ratio=Soil Loss Bare Soil/Soil Loss with RECP=1/C-Factor \*\*\*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	2.00	lbs/ft <sup>2</sup>	95.76	Ра	
Unvegetated Velocity	ASTM D 6460	8.0	ft/s	2.44	m/s	
Vegetated Shear Stress	NA	N/A	lbs/ft <sup>2</sup>	N/A	Ра	
Vegetated Velocity	NA	N/A	ft/s	N/A	m/s	
Manning's N (Value Repres		0.02	29			

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

The values presented are for guidance purposes and do not constitute the practice of engineering. East Coast Erosion Blankets LLC (ECEB) ascertains that at the time of manufacture, all information presented herein is accurate and reliable and falls within the ECEB manufacturing product specification variances. If the product does not meet the stated values and ECEB is notified in writing prior to installation, the product will be replaced at no cost to the purchaser. ECEB will not be held liable for any type of damage or losses. directly, or indirectly for failure of this product. Current revision supersedes all previous versions for this product.