



**Material and Performance Specification**

**ECSC-3 Straw/Coconut Turf Reinforcement Mat**

**Description:** The ECSC-3 is made with uniformly distributed 70% agricultural straw, 30% coconut fiber and three polypropylene nets securely sewn together with UV stabilized 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-3 is a permanent turf reinforcement mat and is suitable for 1:1 slopes and high-flow channels.

<b>Materials:</b>	<b>Netting – Top and Bottom</b>	<b>Matrix</b>	<b>Thread</b>
	Mediumweight 8# PMSF UV Stabilized Polypropylene 0.50" x 0.50" Opening	70% Agricultural Straw 0.385 lbs yd <sup>2</sup> 208.9 g/m <sup>2</sup>	UV Stabilized 1.50" stitch spacing
	Heavyweight 24# PMSF UV Stabilized Polypropylene 0.40" x 0.50" Opening	30% Coconut Fiber 0.165 lbs yd <sup>2</sup> 89.5 g/m <sup>2</sup>	

<b>Roll Size:</b>	<b>Standard</b>	<b>Mega</b>
	Width: 7.5 ft (2.3 m)	15.0 ft (4.6 m)
	Length: 120.0 ft (36.6 m)	120.0 ft (36.6 m)
	Weight $\pm$ 10%: 92.5 lbs (42.0 kg)	185.0 lbs (83.9 kg)
	Area: 100 yd <sup>2</sup> (83.6 m <sup>2</sup> )	200 yd <sup>2</sup> (167.2 m <sup>2</sup> )
#/Pallet: 9	9	

**Index Value Properties\*:**

Property	Test Method	Typical
Mass/Unit Area	ASTM D6475	16.0 oz/yd <sup>2</sup> (542.5g/m <sup>2</sup> )
Thickness	ASTM D6525	.39 in (9.9 mm)
Tensile Strength-MD	ASTM D6818	652 lb/ft (9.5 kN/m)
Elongation-MD	ASTM D6818	20.7 %
Tensile Strength-TD	ASTM D6818	767 lb/ft (11.2 kN/m)
Elongation-TD	ASTM D6818	20.8 %
Light Penetration	ASTM D6567	7 %
UV Resistance	ASTM D4355-500hr	80 %
Density	ASTM D7912	0.919 g/cm <sup>3</sup>

\* May differ depending upon raw material variations

**Bench-Scale Testing\* (NTPEP\*\*\*):**

Test Method	Parameters	Results
ECTC Method 2 Rainfall	50mm (2in) / hr-30 min	SLR**=18.16
	100mm (4in) / hr-30 min	SLR**=17.83
	150mm (6in) / hr-30 min	SLR**=17.50
ECTC Method 3 Shear Resistance	Shear at .50 in soil loss	2.63 lb/ft <sup>2</sup>
ECTC Method 4 Germination	Top soil; Fescue; 21 day incubation	497% improvement

\*Bench scale tests should not be used for design purposes.  
\*\*Soil Loss Ratio=Soil Loss Bare Soil/Soil Loss with RECP=1/C-Factor  
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**Slope Performance Design Values\*:**

Property	Test Method	Value	
Manning's N		0.024	
<b>C-Factors</b>	ASTM D6459		
<b>Slope Length (L)</b>	<b>≤ 3:1</b>	<b>3:1-2:1</b>	<b>≥ 2:1</b>
< 50 ft (15 m)	0.006	0.012	0.072
50 ft – 100 ft	0.026	0.042	0.086
>100 ft (30 m)	0.062	0.082	0.132

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

**Channel Performance Design Values\*:**

Property	Test Method	Value
Unvegetated Shear Stress	ASTM D 6460	2.79 lbs/ft <sup>2</sup> (134 Pa)
Unvegetated Velocity	ASTM D 6460	11 ft/s ( 3.4 m/s)
Vegetated Shear Stress	ASTM D 6460	10.0 lbs/ft <sup>2</sup> (478 Pa)
Vegetated Velocity	ASTM D 6460	20.0 ft/s ( 6.1 m/s)

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



All Value Properties, Test Results and Design Values were derived from independent laboratory testing. East Coast Erosion Blankets, LLC 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.