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## 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>Matrix:</b>	<b>1</b>	<b>2</b>
	70% Straw	30% Coconut
<b>Netting:</b>	<b>Type</b>	
	Top: Medium weight 5# PMSF UV Stabilized Polypropylene	
	Middle: Heavyweight 24# PMSF UV Stabilized Polypropylene	
	Bottom: Medium weight 5# PMSF UV Stabilized Polypropylene	
<b>Net Opening:</b>	<b>Top</b>	<b>Middle</b>
	0.5" x 0.5"	0.4" x 0.5"
		<b>Bottom</b>
		0.5" x 0.5"
<b>Thread:</b>	<b>Type</b>	
	UV Stabilized Thread	
	<b>Color</b>	
	Black	
<b>Roll Sizes:</b>	<b>Standard</b>	<b>"A" Size</b>
		<b>Mega</b>
Width:	8 ft 2.4 m	4 ft 1.2 m
Length:	112.5 ft 34.3 m	225 ft 68.6 m
Weight:*	92 lbs 41.7 kg	92 lbs 41.7 kg
Area:	100 yd <sup>2</sup> 83.6 m <sup>2</sup>	100 yd <sup>2</sup> 83.6 m <sup>2</sup>
#/Pallet:	9	4
		9

\*Weight at time of manufacturing within specified tolerances.

#### Index Value Properties\*:

Property	Test Method	Typical	
Mass/Unit Area	ASTM D6566	14.00 oz/yd <sup>2</sup>	474.7 g/m <sup>2</sup>
Thickness	ASTM D6525	0.39 in	9.91 mm
Tensile Strength-MD	ASTM D6818	728 lb/ft	10.62 kN/m
Elongation-MD	ASTM D6818	21 %	
Tensile Strength-TD	ASTM D6818	632 lb/ft	9.22 kN/m
Elongation-TD	ASTM D6818	20.8 %	
Light Penetration	ASTM D6567	7 %	
Density / Specific Gravity	ASTM D792	0.919 g/cm <sup>3</sup>	
Water Absorption	ASTM D1117	259 %	
Resiliency	ASTM D6524	N/A %	
UV Resistance	ASTM D4355	80 %	500 hours

\*May differ depending upon raw material variations

#### Slope Performance Design Values\*:

Property	Test Method	Value	
<b>C-Factors</b>	ASTM D6459	0.01	
<b>Slope Length (L)</b>	≤ 3:1	3:1-2:1	≥ 2:1
< 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

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

Test Method	Parameters	Results
	50mm (2in) / hr-30 min	SLR**=18.16
ECTC Method 2 Rainfall	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	3.40 lb/ft <sup>2</sup>
ECTC Method 4 Germination	Top soil; Fescue; 21 day incubation	497 %

\*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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#### Channel Performance Design Values\*:

Property	Test Method	Value	
Unvegetated Shear Stress	ASTM D 6460	3.00 lbs/ft <sup>2</sup>	143.64 Pa
Unvegetated Velocity	ASTM D 6460	11.0 ft/s	3.35 m/s
Vegetated Shear Stress	ASTM D 6460	10.0 lbs/ft <sup>2</sup>	478.80 Pa
Vegetated Velocity	ASTM D 6460	20.0 ft/s	6.10 m/s
Manning's N (Value Represents a Range)		0.024	

\*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.

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