



**Material and Performance Specification**

**ECS-1 Single Net Straw Rolled Erosion Control Product**

**Description:** The ECS-1 is made with uniformly distributed 100% agricultural straw and one polypropylene net 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 ECS-1 has functional longevity of approximately 12 months, but will vary depending on soil and climatic conditions, and is suitable for slopes 3:1 or less and low flow channels. The ECS-1 meets Type 2.C specification requirements established by the Erosion Control Technology Council (ECTC) and Federal Highway Administration’s (FHWA) FP-03 Section 713.17.

<b>Materials:</b>	<b>Netting – One Side Only</b>	<b>Matrix</b>	<b>Thread</b>
	Lightweight Photodegradable Polypropylene 0.5" x 0.5" Opening <i>Also available with Ecocycle Technology</i>	100% Agricultural Straw 0.55 lbs yd <sup>2</sup> 298.4 g/m <sup>2</sup>	Degradable 1.5" stitch spacing

<b>Roll Sizes:</b>	<b>A</b>	<b>Standard</b>	<b>Mega</b>
Width:	3.75 ft (1.15 m)	7.5 ft (2.3 m)	15.0 ft (4.6 m)
Length:	240.0 ft (73.1 m)	120.0 ft (36.6 m)	120.0 ft (36.6 m)
Weight ±10%:	57.5 lbs (26.0 kg)	57.5 lbs (26.0 kg)	115.0 lbs (52.2 kg)
Area:	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> )
#/Pallet:	9	16	16

**Index Value Properties\*:**

Property	Test Method	Typical
Mass/Unit Area	ASTM D6475	9.20 oz/yd <sup>2</sup> (311.9 g/m <sup>2</sup> )
Thickness	ASTM D6525	.32 in (8.1 mm)
Tensile Strength-MD	ASTM D6818	121 lb/ft (1.8 kN/m)
Elongation-MD	ASTM D6818	30.1 %
Tensile Strength-TD	ASTM D6818	79 lb/ft (1.2 kN/m)
Elongation-TD	ASTM D6818	35.0 %
Light Penetration	ASTM D6567	8 %
Water Absorption	ASTM D1117	360 %

\* 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**=5.94
	100mm (4in) / hr-30 min	SLR**=6.17
	150mm (6in) / hr-30 min	SLR**=6.41
ECTC Method 3 Shear Resistance	Shear at .50 in soil loss	1.05 lb/ft <sup>2</sup>
ECTC Method 4 Germination	Top soil; Fescue; 21 day incubation	222% 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  
\*\*\*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

**Slope Performance Design Values\*:**

Property	Test Method	Value	
Manning’s N		0.025	
<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)	0.024	NA	NA
50 ft – 100 ft	0.105	NA	NA
>100 ft (30 m)	0.185	NA	NA

\*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	1.50 lbs/ft <sup>2</sup> (72 Pa)
Unvegetated Velocity	ASTM D 6460	6.8 ft/s (2.0 m/s)
Vegetated Shear Stress	NA	NA
Vegetated Velocity	NA	NA

\*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.