



## Material and Performance Specification Sheet

### 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 placed inside vented bags 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. 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.

**Materials:**

**Netting** – One Side Only

Lightweight Photodegradable Polypropylene  
.5" x .5" Opening

**Matrix**

100% Agricultural Straw  
0.55 lbs/sq yd

**Thread**

Degradable  
1.50" stitch spacing

**Roll Sizes:**

**A**

Width: 3.75 ft (1.15 m)  
Length: 192.0 ft (58.5 m)  
Weight  $\pm 10\%$ : 48.0 lbs (20.4 kg)  
Area: 80 yd<sup>2</sup> (66.9 m<sup>2</sup>)  
#/Pallet: 21

**Standards**

7.5 ft (2.3 m)  
96.0 ft (29.3 m)  
48.0 lbs (20.4 kg)  
80 yd<sup>2</sup> (66.9 m<sup>2</sup>)  
20

**Mega**

15.0 ft (4.6 m)  
96.0 ft (29.3 m)  
96.0 lbs (43.5 kg)  
160 yd<sup>2</sup> (133.8 m<sup>2</sup>)  
25

*Also available in 120 ft*

**Index Value Properties\*:**

Property	Test Method	Typical
Mass/Unit Area	ASTM D6475	9.45 oz/yd <sup>2</sup>
Thickness	ASTM D5199	.32 in
Tensile Strength-MD	ASTM D5035	143 lb/ft
Elongation-MD	ASTM D5035	14.9 %
Tensile Strength-TD	ASTM D5035	90 lb/ft
Elongation-TD	ASTM D5035	19.2 %
Light Penetration	ECTC Guidelines	13 %
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**=5.90
	100mm (4in) / hr-30 min	SLR**=7.93
	150mm (6in) / hr-30 min	SLR**=10.6
ECTC Method 3 Shear Resistance	Shear at .50 in soil loss	1.36 lb/ft
ECTC Method 4 Germination	Top soil; Fescue; 21 day incubation	409% 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 (soil loss is based on regression analysis).		

**Design Values\*:**

Property	Test Method	Value
Manning's N	Calculated	.025
RUSLE C-Factor	ASTM D6459	.024
Maximum Permissible Shear Stress	ASTM D6460	1.50 psf (72 Pa)
Maximum Flow Velocity	ASTM D6460	6.7 ft/sec (2.0 m/sec)
*Large-Scale Results obtained by 3 <sup>rd</sup> Party GAI Accredited Independent Laboratory		

**Proud Member of:**

