

# Material and Performance Specification Sheet

## ECSC-2 Double Net Straw/Coconut Rolled Erosion Control Product

**Description:** The ECSC-2 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 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. The ECSC-2 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.

### Materials:

#### Netting

*Top*  
Heavyweight UV Stabilized Polypropylene  
.75" x .75" Opening  
*Bottom*  
Lightweight Photodegradable Polypropylene  
.5" x .5" Opening

#### Matrix

70% Agricultural Straw  
0.385 lbs/sq yd  
208.9 g/m<sup>2</sup>  
30% Coconut Fiber  
0.165 lbs/sq yd  
89.5 g/m<sup>2</sup>

#### Thread

Degradable  
1.50" stitch spacing

### Roll Sizes:

### Standards

|              |   |  |
|--------------|---|--|
| Width:       | 7.5 ft (2.3 m)                            | 7.5 ft (2.3 m)                             |
| Length:      | 96.0 ft (29.3 m)                          | 120.0 ft (36.6 m)                          |
| Weight ±10%: | 48.0 lbs(20.4 kg)                         | 60.0 lbs (27.2 kg)                         |
| Area:        | 80 yd <sup>2</sup> (66.9 m <sup>2</sup> ) | 100 yd <sup>2</sup> (83.6 m <sup>2</sup> ) |
| #/Pallet:    | 20  | 16   |

### Index Value Properties\*:

| Property            | Test Method     | Typical   |
|---------------------|-----------------|---|
| Mass/Unit Area      | ASTM D6475      | 9.45 oz/yd <sup>2</sup> (320.4 g/m <sup>2</sup> ) |
| Thickness           | ASTM D5199      | .29 In (7.4 mm)                                   |
| Tensile Strength-MD | ASTM D5035      | 185 lb/ft (2.7 Kn/m)                              |
| Elongation-MD       | ASTM D5035      | 16.9 %  |
| Tensile Strength-TD | ASTM D5035      | 167 lb/ft (2.4 Kn/m)                              |
| Elongation-TD       | ASTM D5035      | 20.5 %  |
| Light Penetration   | ECTC Guidelines | 11.5 %  |
| Water Absorption    | ASTM D1117      | 326 %   |

\* May differ depending upon raw material variations

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

| Test Method                       | Parameters                             | Results             |
|-----------------------------------|--|---------------------|
| ECTC Method 2<br>Rainfall         | 50mm (2in) / hr-30 min                 | SLR**=5.18          |
|                                   | 100mm (4in) / hr-30 min                | SLR**=5.90          |
|                                   | 150mm (6in) / hr-30 min                | SLR**=6.71          |
| ECTC Method 3<br>Shear Resistance | Shear at .50 in soil loss              | 2.12 lb/ft          |
| ECTC Method 4<br>Germination      | Top soil; Fescue;<br>21 day incubation | 658%<br>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                         | Value                    |
|----------------------------------|--------------------------|
| Manning's N                      | .015                     |
| RUSLE C-Factor                   | .17                      |
| Maximum Permissible Sheer Stress | 2.6 psf (125 Pa)         |
| Maximum Flow Velocity            | 6.75 ft/sec (2.06 m/sec) |