

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 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. 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 | Matrix | Thread |
| | Lightweight Photodegradable Polypropylene .5" x .5" Opening | 100% Agricultural Straw 0.55 lbs/sq yd 298.4 g/m ² | Degradable 1.50" stitch spacing |

| | | | |
|---------------------|---|---|---|
| Roll Sizes: | A | Standards | Mega |
| Width: | 3.75 ft (1.15 m) | 7.5 ft (2.3 m) | 15.0 ft (4.6 m) |
| Length: | 192.0 ft (58.5 m) | 96.0 ft (29.3 m) | 96.0 ft (29.3 m) |
| Weight $\pm 10\%$: | 48.0 lbs (20.4 kg) | 48.0 lbs (20.4 kg) | 96.0 lbs (43.5 kg) |
| Area: | 80 yd ² (66.9 m ²) | 80 yd ² (66.9 m ²) | 160 yd ² (133.8 m ²) |
| #/Pallet: | 21 | 20 | 25 |

Also available in 120 ft

Index Value Properties*:

| Property | Test Method | Typical |
|---|-----------------|---|
| Mass/Unit Area | ASTM D6475 | 9.45 oz/yd ² (320.4 g/m ²) |
| Thickness | ASTM D5199 | .32 in (8.1mm) |
| Tensile Strength-MD | ASTM D5035 | 143 lb/ft (2.1 Kn/m) |
| Elongation-MD | ASTM D5035 | 14.9 % |
| Tensile Strength-TD | ASTM D5035 | 90 lb/ft (1.3 Kn/m) |
| 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 Sheer 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 rd Party GAI Accredited Independent Laboratory | | |