



ECS™ -1D Temporary Single Net Straw Rolled Erosion Control Product

The ECS-1D is an erosion control blanket 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-1D has functional longevity of approximately 45 to 90 days, but will vary depending on soil and climate conditions, and is suitable for slopes 3:1 or less. The ECS-1D meets Type 1.C specification requirements established by the Erosion Control Technology Council (ECTC) and Federal Highway Administration's (FHWA) FP-03 Section 713.17.

Materials: Netting – Top

Accelerated Lightweight Photodegradable Polypropylene
 0.50" x 0.50" Opening
 Color: Clear-1% UVD

Matrix

100% Straw
 8.0 oz/yd² (271.2 g/m²)

Thread

Degradable Thread
 Color: White

Roll Sizes:

	Standard	"A" Size	Mega
Width:	8.0 ft (2.4 m)	4.0 ft 1.2 m	16.0 ft (4.9 m)
Length:	112.5 ft (34.3 m)	225 ft 68.6 m	112.5 ft (34.3 m)
Weight ±10%:	50.0 lbs (22.7 kg)	50 lbs 22.7 kg	100.0 lbs (45.4 kg)
Area:	100 yd ² (83.6 m ²)	100 ys ² 83.6 m ²	200 yd ² (167.2 m ²)
#/Pallet:	25	9	25

Index Value Properties*:

Property	Test Method	Typical
Mass/Unit Area	ASTM D6475	8.00 oz/yd ² 271.2 g/m ²
Thickness	ASTM D6525	.30 in (7.62 mm)
Tensile Strength-MD	ASTM D6818	121 lb/ft (1.77 kN/m)
Elongation-MD	ASTM D6818	30 %
Tensile Strength-TD	ASTM D6818	79 lb/ft (1.15 kN/m)
Elongation-TD	ASTM D6818	35.0 %
Light Penetration	ASTM D6567	22 %
Density / Specific Gravity	ASTM D792	N/A g/cm ³
Water Absorption	ASTM D1117	458 %

* 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**= 6.29
	100mm (4in) / hr-30 min	SLR**= 5.80
	150mm (6in) / hr-30 min	SLR**= 5.37
ECTC Method 3 Shear Resistance	Shear at .50 in soil loss	1.10 lb/ft ²
ECTC Method 4 Germination	Top soil; Fescue; 21 day incubation	517%

*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 by AASHTO

SLOPE Performance Design Values*:

Property	Test Method	Value
C-Factors	ASTM D6459	0.02
Slope Length (L)	≤ 3:1	3:1 – 2:1 ≥ 2:1
< 50 ft (15m)	0.024	N/A N/A
50 ft – 100 ft	0.105	N/A N/A
> 100 ft (30 m)	0.185	N/A N/A

*Large-Scale Results obtained by 3rd Party GAI Accredited Independent Laboratory

CHANNEL Performance Design Values*:

Property	Test Method	Value
Unvegetated Shear Stress	ASTM D 6460	1.50 lbs/ft ² (71.82 Pa)
Unvegetated Velocity	ASTM D 6460	6.8 ft/s (2.07 m/s)
Vegetated Shear Stress	NA	NA
Vegetated Velocity	NA	NA
Manning's N	Calculated Range	0.025

*Large-Scale Results obtained by 3rd Party GAI Accredited Independent Laboratory

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