



ECS-1B Single Net Straw Biodegradable Rolled Erosion Control Product

The ECS-1B is an erosion control blanket made with uniformly distributed 100% agricultural straw and one organic jute net securely sewn together with biodegradable 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-1B has functional longevity of approximately 12 months, but will vary depending on soil and climate conditions, and is suitable for slopes 3:1 or less and low flow channels. The ECS-1B 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 – Top	Matrix	Thread
	Organic Leno Weave Jute 0.50" x 1.0" Opening Color: Natural	100% Straw	Biodegradable Thread Color: Natural

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 $\pm 10\%$:	57.0 lbs (25.9 kg)	57 lbs 25.9 kg	114.0 lbs (51.7 kg)
Area:	100 yd ² (83.6 m ²)	100 ys ² 83.6m ²	200 yd ² (167.2 m ²)
#/Pallet:	20	9	20

Index Value Properties*:

Property	Test Method	Typical
Mass/Unit Area	ASTM D6475	9.00 oz/yd ² 305.1 g/m ²
Thickness	ASTM D6525	.30 in (7.62 mm)
Tensile Strength-MD	ASTM D6818	106 lb/ft (1.55 kN/m)
Elongation-MD	ASTM D6818	17 %
Tensile Strength-TD	ASTM D6818	118 lb/ft (1.72 kN/m)
Elongation-TD	ASTM D6818	26.8 %
Light Penetration	ASTM D6567	20 %
Density / Specific Gravity	ASTM D792	N/A g/cm ³
Water Absorption	ASTM D1117	492 %
* 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**= 6.73
	100mm (4in) / hr-30 min	SLR**= 7.45
	150mm (6in) / hr-30 min	SLR**= 8.26
ECTC Method 3 Shear Resistance	Shear at .50 in soil loss	1.40 lb/ft ²
ECTC Method 4 Germination	Top soil; Fescue; 21 day incubation	580%
*Bench scale tests should not be used for design purposes.		
**Soil Loss Ratio=Soil Loss Bare Soil/Soil Loss with RECP=1/C-Factor		
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SLOPE Performance Design Values*:

Property	Test Method	Value
C-Factors	ASTM D6459	0.08
Slope Length (L)	$\leq 3:1$	$3:1 - 2:1$
< 50 ft (15m)	0.075	N/A
50 ft – 100 ft	0.156	N/A
> 100 ft (30 m)	0.236	N/A
*Large-Scale Results obtained by 3 rd Party GAI Accredited Independent Laboratory		

CHANNEL Performance Design Values*:

Property	Test Method	Value
Unvegetated Shear Stress	ASTM D 6460	1.55 lbs/ft ² (74.21 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 3 rd Party GAI Accredited Independent Laboratory		

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