



Material and Performance Specification

ECS-2D Temporary Double Net Straw Rolled Erosion Control Product

Description: The ECS-2D is made with uniformly distributed 100% agricultural straw 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 ECS-2D has functional longevity of approximately 45 to 90 days, but will vary depending on soil and climatic conditions, and is suitable for slopes 2:1 to 3:1 and low to medium flow channels. The ECS-2D meets Type 1.D specification requirements established by the Erosion Control Technology Council (ECTC) and Federal Highway Administration's (FHWA) FP-03 Section 713.17.

Materials:

Netting – Top and Bottom	Matrix	Thread
Accelerated Lightweight Photodegradable Polypropylene 0.5" x 0.5" Opening	100% Agricultural Straw 0.55 lbs/yd ² 298.4 g/m ²	Degradable 1.50" stitch spacing

Roll Sizes:

	A	Standard	Mega
Width:	3.75 ft (1.15 m)	7.5 ft (2.3 m)	15.0 ft (4.6 m)
Length:	240.0 ft (73.1 m)	120.0 ft (36.6 m)	120.0 ft (36.6 m)
Weight ±10%:	57.5 lbs (26.0 kg)	57.5 lbs (26.0 kg)	115.0 lbs (52.2 kg)
Area:	100 yd ² (83.6 m ²)	100 yd ² (83.6 m ²)	200 yd ² (167.2 m ²)
#/Pallet:	9	16	16

Index Value Properties*:

Property	Test Method	Typical
Mass/Unit Area	ASTM D6475	9.45 oz/yd ² (320.4g/m ²)
Thickness	ASTM D6525	.32 in (8.1mm)
Tensile Strength-MD	ASTM D6818	150 lb/ft (2.2 kN/m)
Elongation-MD	ASTM D6818	27.6 %
Tensile Strength-TD	ASTM D6818	96 lb/ft (1.4 kN/m)
Elongation-TD	ASTM D6818	29.4 %
Light Penetration	ASTM D6567	19 %
Water Absorption	ASTM D1117	418 %
* 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**=5.86
	100mm (4in) / hr-30 min	SLR**=10.00
	150mm (6in) / hr-30 min	SLR**=17.04
ECTC Method 3 Shear Resistance	Shear at .50 in soil loss	1.95 lb/ft ²
ECTC Method 4 Germination	Top soil; Fescue; 21 day incubation	319% 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		
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Slope Performance Design Values*:

Property	Test Method	Value	
Manning's N		0.029	
C-Factors	ASTM D6459	.014	
Slope Length (L)	≤ 3:1	3:1-2:1	≥ 2:1
< 50 ft (15 m)	0.014	0.077	NA
50 ft – 100 ft	0.048	0.084	NA
>100 ft (30 m)	0.086	0.125	NA
*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	2.05 lbs/ft ² (98 Pa)
Unvegetated Velocity	ASTM D 6460	9.3 ft/s (2.8 m/s)
Vegetated Shear Stress	NA	NA
Vegetated Velocity	NA	NA
*Large-Scale Results obtained by 3 rd Party GAI Accredited Independent Laboratory		



All Value Properties, Test Results and Design Values were derived from independent laboratory testing. East Coast Erosion Blankets, LLC will not be held liable for any type of damage or losses, directly, or indirectly for failure of this product. Current revision supersedes all previous versions.