Carthage Mills **Product Data**

Geotextiles | Erosion Control | Geogrids | Geomembranes

ECS-2 Double Net Straw Rolled Erosion Control Product

The ECS-2 is an erosion control blanket 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-2 has functional longevity of approximately 12 months, but will vary depending on soil and climate conditions, and is suitable for slopes 2:1 or less and low to medium flow channels. The ECS-2 meets Type 2.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**
	Lightweight Photodegradable Polypropylene 0.50" x 0.50" Opening Color: Green	100% Straw	Degradable Thread Color: White

Roll Sizes:	**Standard**	**"A" Size**	**Mega**
Width:	8.0 ft (2.4 m)	4 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%:	53.0 lbs (24.0 kg)	53 lbs 24.0 kg	106.0 lbs (48.1 kg)
Area:	100 yd^2 (83.6 m^2)	100 yd^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	8.50	oz/yd^2 288.2 g/m2
Thickness	ASTM D6525	.32	in (8.13 mm)
Tensile Strength-MD	ASTM D6818	150	lb/ft (2.19 kN/m)
Elongation-MD	ASTM D6818	28	%
Tensile Strength-TD	ASTM D6818	80	lb/ft (1.17 kN/m)
Elongation-TD	ASTM D6818	29.4	%
Light Penetration	ASTM D6567	19	%
Density / Specific Gravity	ASTM D792	N/A g/cm^3	
Water Absorption	ASTM D1117	390	%
* 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**= 5.84
	100mm (4in) / hr-30 min	SLR**= 6.87
	150mm (6in) / hr-30 min	SLR**= 8.09
ECTC Method 3 Shear Resistance	Shear at .50 in soil loss	1.61 lb/ft^2
ECTC Method 4 Germination	Top soil; Fescue; 21 day incubation	455%
*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		0.01
	Slope Length (L)	≤ 3:1	3:1 – 2:1	≥ 2:1
	< 50 ft (15m)	0.005	0.078	N/A
	50 ft – 100 ft	0.020	0.079	N/A
	> 100 ft (30 m)	0.038	0.800	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	2.05 lbs/ft^2 (98.15 Pa)
Unvegetated Velocity	ASTM D 6460	7.5 ft/s (2.29 m/s)
Vegetated Shear Stress	NA	NA
Vegetated Velocity	NA	NA
Manning's N	Calculated Range	0.029
*Large-Scale Results obtained by 3rd Party GAI Accredited Independent Laboratory		

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