

Material and Performance Specification Sheet

ECS-2™ Double Net Straw Rolled Erosion Control Product

Description: The ECS-2™ 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-2™ has functional longevity of approximately 12 months, but will vary depending on soil and climatic conditions, and is suitable for slopes 2:1 or less. 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 Lightweight Photodegradable Polypropylene .5" x .5" Opening	Matrix 100% Agricultural Straw 0.55 lbs/sq yd 298.4 g/m ²	Thread 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 ±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
			<i>Also available in 120 ft</i>

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 (8.1 mm)
Tensile Strength-MD	ASTM D5035	185 lb/ft (2.7 Kn/m)
Elongation-MD	ASTM D5035	19.9 %
Tensile Strength-TD	ASTM D5035	115 lb/ft (1.7 Kn/m)
Elongation-TD	ASTM D5035	15.9 %
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**=7.47
	100mm (4in) / hr-30 min	SLR**=11.24
	150mm (6in) / hr-30 min	SLR**=16.91
ECTC Method 3 Shear Resistance	Shear at .50 in soil loss	1.93 lb/ft
ECTC Method 4 Germination	Top soil; Fescue; 21 day incubation	572% 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	.029
RUSLE C-Factor	ASTM D6459	.014
Maximum Permissible Sheer Stress	ASTM D6460	2.05 psf (98 Pa)
Maximum Flow Velocity	ASTM D6460	9.3 ft/sec (2.8 m/sec)
*Large-Scale Results obtained by 3 rd Party GAI Accredited Independent Laboratory		