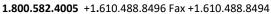


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## **Material and Performance Specification**

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

## **Description:**

The ECS-1D™ is 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 climatic 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

Matrix:		1			2				
	100% Straw			N	/A				
Netting:	Туре					Net (	Net Color		
Тор:	pp: Accelerated Lightweight Photodegradable Polypropylene					Clear -	Clear - 1% UVD		
Middle:	None								
Bottom:	None								
<b>Net Opening:</b>	Тор			Mic	ddle	Bot	Bottom		
	0.5	5" x 0.5"		N	/A	N <sub>1</sub>	/A		
Thread:	Туре			Color					
	Degradable Thread			White					
Roll Sizes:	St	andard		"A"	Size	Me	ega		
Width:	8 ft	2.4 m	4.00	ft	1.2 m	16 ft	4.9 m		
Length:	112.5 ft	34.3 m	225	ft	68.6 m	112.5 ft	34.3 m		
Weight*:	50 lbs	22.7 kg	50	lbs	22.7 kg	100 lbs	45.4 kg		
Area:	100 yd <sup>2</sup>	83.6 m <sup>2</sup>	100	$yd^2$	83.6 m <sup>2</sup>	200 yd <sup>2</sup>	167.2 m <sup>2</sup>		
#/Pallet:		25		9		2	5		

<sup>\*</sup>Weight at time of manufacturing.

Index Value Properties*:						
Property	Test Method	Typical				
Mass/Unit Area	ASTM D6475	8.00	oz/yd²	271.2	g/m2	
Thickness	ASTM D6525	0.30	in	7.62	mm	
Tensile Strength-MD	ASTM D6818	121.00	lb/ft	1.77	kN/m	
Elongation-MD	ASTM D6818	30	%			
Tensile Strength-TD	ASTM D6818	79.00	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 <sup>3</sup>			
Water Absorption	ASTM D1117	458	%			

<sup>\*</sup>May differ depending upon raw material variations

ope Performance De	esign Values*:		
Property	Test Me	Value 0.00	
C-Factors	ASTM D		
Slope Length (L)	≤ 3:1	3:1-2:1	≥ 2:1
< 50 ft (15 m)	0.001	N/A	N/A
50 ft – 100 ft	0.040	N/A	N/A
>100 ft (30 m)	0.080	N/A	N/A

<sup>\*</sup>Large-Scale Results obtained by 3<sup>rd</sup> Party GAI Accredited Independent Laboratory

Test Method	Parameters	Results
	50mm (2in) / hr-30 min	SLR**=6.29
ECTC Method 2 Rainfall	100mm (4in) / hr-30 min	SLR**=5.80
	150mm (6in) / hr-30 min	SLR**=5.37
ECTC Method 3 Shear Resistar	nce Shear at .50 in soil loss	1.10 lb/ft <sup>2</sup>
ECTC Method 4 Germination	Top soil; Fescue; 21 day incub	oation 517 %
*Bench scale tests should not	be used for design purposes.	

<sup>\*\*</sup>Soil Loss Ratio=Soil Loss Bare Soil/Soil Loss with RECP=1/C-Factor

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Channel Performance Design Values*:						
Property	Test Method	Value				
Unvegetated Shear Stress	ASTM D 6460	1.50	lbs/ft <sup>2</sup>	71.82	Pa	
Unvegetated Velocity	ASTM D 6460	6.8	ft/s	2.07	m/s	
Vegetated Shear Stress	NA	N/A	lbs/ft <sup>2</sup>	N/A	Pa	
Vegetated Velocity	NA	N/A	ft/s	N/A	m/s	
Manning's N (Value Represe		0.02	25			

<sup>\*</sup>Large-Scale Results obtained by 3<sup>rd</sup> Party GAI Accredited Independent Laboratory