



ECSC-3 Straw/Coconut Turf Reinforcement Mat

The ECSC-3 is made with uniformly distributed 70% agricultural straw, 30% coconut fiber and three polypropylene nets securely sewn together with UV stabilized thread. The tightly compressed blankets are wrapped and include a product label, code and installation guide. The blankets are palletized for easy transportation.

The ECSC-3 is a permanent turf reinforcement mat and is suitable for 1:1 slopes and high-flow channels.

Materials:	Netting – Top / Middle / Bottom	Matrix	Thread
	Medium 5#/Heavy 24#/ Medium 5# PMSF UV Stabilized Polypropylene, Black .5" x .5" / .4" x .5" / .5" x .5"	70% Straw 30% Coconut	UV Stabilized Black

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)	225.0 ft (68.6 m)	112.5 ft (34.3 m)
Weight $\pm 10\%$:	92.0 lbs (41.7 kg)	92.0 lbs (41.7 kg)	184.0 lbs (83.5 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	4	9

Index Value Properties*:

Property	Test Method	Typical
Mass/Unit Area	ASTM D6475	14.00 oz/yd ² (474.7 g/m ²)
Thickness	ASTM D6525	.39 In (9.91 mm)
Tensile Strength-MD	ASTM D6818	728 lb/ft (10.62 Kn/m)
Elongation-MD	ASTM D6818	21 %
Tensile Strength-TD	ASTM D6818	632 lb/ft (9.22 Kn/m)
Elongation-TD	ASTM D6818	20.8 %
Light Penetration	ASTM D6567	7 %
Density / Specific Gravity	ASTM D7912	0.919 g/cm ³
Water Absorption	ASTM D1117	259 %
Resiliency	ASTM D6524	N/A %
UV Resistance	ASTM D4355	80 % (500 hr)
* May differ depending upon raw material variations		

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)	0.006	0.012	0.072
50 ft – 100 ft	0.026	0.042	0.086
> 100 ft (30 m)	0.062	0.082	0.132
*Large-Scale Results obtained by 3 rd Party GAI Accredited Independent Laboratory			

Bench-Scale Testing* (NTPEP*):**

Test Method	Parameters	Results
ECTC Method 2 Rainfall	50mm (2in) / hr-30 min	SLR**=18.16
	100mm (4in) / hr-30 min	SLR**=17.83
	150mm (6in) / hr-30 min	SLR**=17.50
ECTC Method 3 Shear Resistance	Shear at .50 in soil loss	3.40 lb/ft ²
ECTC Method 4 Germination	Top soil; Fescue; 21 day incubation	497% 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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Channel Performance Design Values*:

Property	Test Method	Value
Unvegetated Shear Stress	ASTM D 6460	3.00 lbs/ft ² (143.64 Pa)
Unvegetated Velocity	ASTM D 6460	11.0 ft/s (3.35 m/s)
Vegetated Shear Stress	ASTM D 6460	10.0lbs/ ft ² (478.80 Pa)
Vegetated Velocity	ASTM D 6460	20.0 ft/s (6.10 m/s)
Manning's N (Value Represents a Range)	Calculated	0.024
*Large-Scale Results obtained by 3 rd Party GAI Accredited Independent Laboratory		

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