



Material and Performance Specification

ECP-2 Polypropylene Turf Reinforcement Mat

Description: The ECP-2 is made with uniformly distributed 100% green polypropylene fiber and two mediumweight 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 ECP-2 is a permanent turf reinforcement mat and is suitable for 1:1 slopes and high-flow channels. The ECP-2 meets Type 5.A, 5.B, and 5.C specification requirements established by the Erosion Control Technology Council (ECTC) and Federal Highway Administration's (FHWA) FP-03 Section 713.18.

Materials:

Netting – Top, and Bottom	Matrix	Thread
Mediumweight 5# PMSF UV Stabilized Polypropylene 0.50" x 0.50" Opening	100% Green Polypropylene Fiber 0.75 lbs yd ² 406.9 g/m ²	UV Stabilized 1.50" stitch spacing

Roll Size:

	Standard	Mega
Width:	7.5 ft (2.3 m)	15.0 ft (4.6 m)
Length:	120.0 ft (36.6 m)	120.0 ft (36.6 m)
Weight \pm 10%:	81.0 lbs (36.7 kg)	162.0 lbs (73.5 kg)
Area:	100 yd ² (83.6 m ²)	200 yd ² (167.2 m ²)
#/Pallet:	9/12	9/12

Index Value Properties*:

Property	Test Method	Typical
Mass/Unit Area	ASTM D6566	13.5 oz/yd ² (382.7 g/m ²)
Thickness	ASTM D6525	.34 in (8.6 mm)
Tensile Strength-MD	ASTM D6818	356 lb/ft (5.2 kN/m)
Elongation-MD	ASTM D6818	30.5 %
Tensile Strength-TD	ASTM D6818	461 lb/ft (6.7 kN/m)
Elongation-TD	ASTM D6818	19 %
Light Penetration	ASTM D6567	25 %
Density	ASTM D7912	0.915 %
UV Resistance	ASTM D4355-1000hr	82 %
* 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**=4.70
	100mm (4in) / hr-30 min	SLR**=8.49
	150mm (6in) / hr-30 min	SLR**=15.34
ECTC Method 3 Shear Resistance	Shear at .50 in soil loss	2.92 lb/ft ²
ECTC Method 4 Germination	Top soil; Fescue; 21 day incubation	651% 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		0.028	
C-Factors	ASTM D6459		
Slope Length (L)	≤ 3:1	3:1-2:1	≥ 2:1
< 50 ft (15 m)	0.012	0.025	0.092
50 ft – 100 ft	0.036	0.065	0.115
>100 ft (30 m)	0.080	0.108	0.145
*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	2.25 lbs/ft ² (108 Pa)
Unvegetated Velocity	ASTM D 6460	9.1 ft/s (2.8 m/s)
Vegetated Shear Stress	ASTM D 6460	12.0 lbs/ft ² (574 Pa)
Vegetated Velocity	ASTM D 6460	18.0 ft/s (5.5 m/s)
*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.