



Material and Performance Specification

ECP-2 10 oz Polypropylene Turf Reinforcement Mat

Description: The ECP-2 10 oz. 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 10 oz. is a permanent turf reinforcement mat and is suitable for 1:1 slopes and high-flow channels. The ECP-2 10 oz. meets Type 5.A, 5.B 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 0.63 lbs yd ² 341.8 g/m ²	UV Stabilized 1.50" stitch spacing

Roll Sizes:

	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 ±10%:	63.0 lbs (36.7 kg)	126.0 lbs(57.1 kg)
Area:	100 yd ² (83.6 m ²)	200 yd ² (167.2 m ²)
#/Pallet:	16	16

Index Value Properties*:

Property	Test Method	Typical
Mass/Unit Area	ASTM D6566	10.4 oz/yd ² 352.6g/m ²
Thickness	ASTM D6525	.45 in (11.4 mm)
Tensile Strength-MD	ASTM D6818	380 lb/ft (5.5kN/m)
Elongation-MD	ASTM D6818	23.5 %
Tensile Strength-TD	ASTM D6818	289 lb/ft (4.2 kN/m)
Elongation-TD	ASTM D6818	20.0 %
Light Penetration	ASTM D6567	14 %
Density	ASTM D7912	0.92 g/cm ³
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**=4.58
	100mm (4in) / hr-30 min	SLR**=8.80
	150mm (6in) / hr-30 min	SLR**=16.92
ECTC Method 3 Shear Resistance	Shear at .50 in soil loss	2.42 lb/ft ²
ECTC Method 4 Germination	Top soil; Fescue; 21 day incubation	482% 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		0.024	
C-Factors	ASTM D6459		
Slope Length (L)	≤ 3:1	3:1-2:1	≥ 2:1
< 50 ft (15 m)	0.009	0.019	0.062
50 ft – 100 ft	0.025	0.044	0.077
>100 ft (30 m)	0.053	0.072	0.096

*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	2.15 lbs/ft ² (100 Pa)
Unvegetated Velocity	ASTM D 6460	8.0 ft/s (2.4 m/s)
Vegetated Shear Stress	ASTM D 6460	8.0 lbs/ft ² (384 Pa)
Vegetated Velocity	ASTM D 6460	16.0 ft/s (4.9 m/s)

*Large-Scale Results obtained by 3rd Party GAI Accredited Independent Laboratory

