



## ECP-2 Polypropylene Turf Reinforcement Mat

The ECP-2 is made with uniformly distributed 100% green polypropylene fiber and two medium weight 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.

<b>Materials:</b>	<b>Netting - Top and Bottom</b>	<b>Matrix</b>	<b>Thread</b>
	Medium weight 5# PMSF UV Stabilized Polypropylene, Black .5" x .5" Opening	100% Green or Tan Polypropylene Fiber	UV Stabilized Black

<b>Roll Sizes:</b>	<b>Standard</b>	<b>"A" Size</b>	<b>Mega</b>
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 $\pm 10\%$ :	75.0 lbs (34.0 kg)	75.0 lbs (34.0 kg)	150.0 lbs (68.0 kg)
Area:	100 yd <sup>2</sup> (83.6 m <sup>2</sup> )	100 yd <sup>2</sup> (83.6 m <sup>2</sup> )	200 yd <sup>2</sup> (167.2 m <sup>2</sup> )
#/Pallet:	9	6	9

**Index Value Properties\*:**

Property	Test Method	Typical
Mass/Unit Area	ASTM D6475	12.00 oz/yd <sup>2</sup> (406.9 g/m <sup>2</sup> )
Thickness	ASTM D6525	.40 In (10.16 mm)
Tensile Strength-MD	ASTM D6818	400 lb/ft (5.84 kN/m)
Elongation-MD	ASTM D6818	31 %
Tensile Strength-TD	ASTM D6818	400 lb/ft (5.84 kN/m)
Elongation-TD	ASTM D6818	19.0 %
Light Penetration	ASTM D6567	18 %
Density / Specific Gravity	ASTM D7912	0.915 g/cm <sup>3</sup>
Water Absorption	ASTM D1117	0 %
Resiliency	ASTM D6524	80 %
UV Resistance	ASTM D4355	82 % (1000 hr)

\* May differ depending upon raw material variations

**Slope Performance Design Values\*:**

Property	Test Method	Value	
<b>C-Factors</b>	ASTM D6459	0.01	
<b>Slope Length (L)</b>	<b>≤ 3:1</b>	<b>3:1-2:1</b>	<b>≥ 2:1</b>
< 50 ft (15m)	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<sup>rd</sup> Party GAI Accredited Independent Laboratory

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

Test Method	Parameters	Results
ECTC Method 2 Rainfall	50mm (2in) / hr-30 min	SLR**=5.53
	100mm (4in) / hr-30 min	SLR**=5.38
	150mm (6in) / hr-30 min	SLR**=5.22
ECTC Method 3 Shear Resistance	Shear at .50 in soil loss	2.72 lb/ft <sup>2</sup>
ECTC Method 4 Germination	Top soil; Fescue; 21 day incubation	469% 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  
 \*\*\* The preceding test data excerpts were reproduced with the permission of AASHTO, however, this does not constitute endorsement or approval of the product by AASHTO

**Channel Performance Design Values\*:**

Property	Test Method	Value
Unvegetated Shear Stress	ASTM D 6460	2.60 lbs/ft <sup>2</sup> (124.49 Pa)
Unvegetated Velocity	ASTM D 6460	10.0 ft/s (3.05 m/s)
Vegetated Shear Stress	ASTM D 6460	12.0lbs/ ft <sup>2</sup> (574.56 Pa)
Vegetated Velocity	ASTM D 6460	20.0 ft/s (6.10 m/s)
Manning's N (Value Represents a Range)	Calculated	0.028

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

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