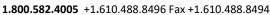


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## **Material and Performance Specification**

## **ECP-3™** Polypropylene Turf Reinforcement Mat

## **Description:**

The ECP-3™ is made with uniformly distributed 100% green polypropylene fiber and three heavyweight 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-3™ is a permanent turf reinforcement mat and is suitable for 1:1 slopes and high-flow channels. The ECP-3™ meets Type 5.A, 5.B, 5.C and 5.D specification requirements established by the Erosion Control Technology Council (ECTC) and Federal Highway Administration's (FHWA) FP-03 Section 713.18.

Matrix:		1	2		
	Green or Tan Polypropylene Fiber		N/A		
Netting:	Туре				Net Color
Top:	Top: Heavyweight 24# PMSF UV Stabilized Polypropylene		opylene		Black
Middle:	Heavyweight 24# PMSF	UV Stabilized Polypi	ropylene		
Bottom:	Heavyweight 24# PMSF	UV Stabilized Polypi	ropylene		
<b>Net Opening:</b>	Net Opening: Top 0.4" x 0.5"		Middle	Middle	
			0.4" x 0.5	"	0.4" x 0.5"
Thread:		Гуре	Color		
	UV Stabilized Thread		Black		
Roll Sizes:	Sta	andard	"A" Size		Mega
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:*	125 lbs	56.7 kg	125 lbs 56.	7 kg	250 lbs 113.4 kg
Area:	100 yd²	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:		6	9		4

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

Index Value Properties*:							
Property	Test Method	Ту	Typical				
Mass/Unit Area	ASTM D6566	19.00 oz/yd²	644.2 g/m2				
Thickness	ASTM D6525	0.41 in	10.41 mm				
Tensile Strength-MD	ASTM D6818	1232 lb/ft	17.98 kN/m				
Elongation-MD	ASTM D6818	17 %					
Tensile Strength-TD	ASTM D6818	1192 lb/ft	17.40 kN/m				
Elongation-TD	<b>ASTM D6818</b>	19.0 %					
Light Penetration	ASTM D6567	15 %					
Density / Specific Gravity	ASTM D792	$0.913 \text{ g/cm}^3$					
Water Absorption	<b>ASTM D1117</b>	0 %					
Resiliency	ASTM D6524	93 %					
UV Resistance	ASTM D4355	100 %	1000 hours				

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

Slope Performance Design 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)	0.000	0.001	0.020		
50 ft – 100 ft	0.001	0.003	0.024		
>100 ft (30 m)	0.003	0.006	0.027		

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

Bench-Scale Testing* (NTPEP***):				
Test Method	Parameters	Results		
	50mm (2in) / hr-30 min	SLR**=7.68		
ECTC Method 2 Rainfall	100mm (4in) / hr-30 min	SLR**=10.42		
	150mm (6in) / hr-30 min	SLR**=14.15		
ECTC Method 3 Shear Resistance	Shear at .50 in soil loss	3.51 lb/ft <sup>2</sup>		

<sup>\*</sup>Bench scale tests should not be used for design purposes.

ECTC Method 4 Germination Top soil; Fescue; 21 day incubation 426 %

Channel Performance Design Values*:						
Property	Test Method		Value			
Unvegetated Shear Stress	ASTM D 6460	3.80	lbs/ft <sup>2</sup>	181.94	Pa	
Unvegetated Velocity	ASTM D 6460	12.1	ft/s	3.69	m/s	
Vegetated Shear Stress	ASTM D 6460	14.0	lbs/ft <sup>2</sup>	670.32	Pa	
Vegetated Velocity	ASTM D 6460	25.0	ft/s	7.62	m/s	
Manning's N (Value Represents a Range)			0.02	28		

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

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

<sup>\*\*\*</sup>The preceding test data excerpts were reproduced with the permission of AASHTO, however, this does not constitute endorsement or approval of the product, material or device by AASHTO