



Proud Member and Participant of:

[www.eastcoasterosion.com](http://www.eastcoasterosion.com)

443 Bricker Road Bernville, PA 19506

1.800.582.4005 +1.610.488.8496 Fax +1.610.488.8494



## Material and Performance Specification

### ECC-3™ Coconut Turf Reinforcement Mat

#### Description:

The ECC-3™ is made with uniformly distributed 100% 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 ECC-3™ is a permanent turf reinforcement mat and is suitable for 1:1 slopes and high-flow channels. The ECC-3™ meets Type 5.A, 5.B, 5.C and 5.D specification requirements established by the Erosion Control Technology Council (ECTC)

Matrix:	1	2
	100% Coconut	N/A

Netting:	Type	Net Color
Top:	Medium weight 8# PMSF UV Stabilized Polypropylene	Black
Middle:	Heavyweight 24# PMSF UV Stabilized Polypropylene	
Bottom:	Medium weight 8# PMSF UV Stabilized Polypropylene	

Net Opening:	Top	Middle	Bottom
	0.5" x 0.5"	0.4" x 0.5"	0.5" x 0.5"

Thread:	Type	Color
	UV Stabilized Thread	

Roll Sizes:	Standard		"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:*	92 lbs	41.7 kg	92 lbs	41.7 kg	184 lbs	83.5 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		9		9	

\*Weight at time of manufacturing within specified tolerances.

#### Index Value Properties\*:

Property	Test Method	Typical	
Mass/Unit Area	ASTM D6566	13.25 oz/yd <sup>2</sup>	449.2 g/m <sup>2</sup>
Thickness	ASTM D6525	0.34 in	8.64 mm
Tensile Strength-MD	ASTM D6818	802 lb/ft	11.70 kN/m
Elongation-MD	ASTM D6818	25 %	
Tensile Strength-TD	ASTM D6818	643 lb/ft	9.38 kN/m
Elongation-TD	ASTM D6818	15.7 %	
Light Penetration	ASTM D6567	14 %	
Density / Specific Gravity	ASTM D792	0.888 g/cm <sup>3</sup>	
Water Absorption	ASTM D1117	348 %	
Resiliency	ASTM D6524	86 %	
UV Resistance	ASTM D4355	98 %	1000 hours

\*May differ depending upon raw material variations

#### Slope Performance Design Values\*:

Property	Test Method	Value	
<b>C-Factors</b>	ASTM D6459	0.00	
<b>Slope Length (L)</b>	<b>≤ 3:1</b>	<b>3:1-2:1</b>	<b>≥ 2:1</b>
< 50 ft (15 m)	0.001	0.005	0.040
50 ft – 100 ft	0.002	0.008	0.051
>100 ft (30 m)	0.005	0.010	0.062

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

#### Bench-Scale Testing\* (NTPPEP\*\*\*):

Test Method	Parameters	Results
	50mm (2in) / hr-30 min	SLR**=7.70
ECTC Method 2 Rainfall	100mm (4in) / hr-30 min	SLR**=10.43
	150mm (6in) / hr-30 min	SLR**=14.18
ECTC Method 3 Shear Resistance	Shear at .50 in soil loss	3.13 lb/ft <sup>2</sup>
ECTC Method 4 Germination	Top soil; Fescue; 21 day incubation	364 %

\*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, material or device by AASHTO

#### Channel Performance Design Values\*:

Property	Test Method	Value	
Unvegetated Shear Stress	ASTM D 6460	3.20 lbs/ft <sup>2</sup>	153.22 Pa
Unvegetated Velocity	ASTM D 6460	11.5 ft/s	3.51 m/s
Vegetated Shear Stress	ASTM D 6460	12.0 lbs/ft <sup>2</sup>	574.56 Pa
Vegetated Velocity	ASTM D 6460	25.0 ft/s	7.62 m/s
Manning's N (Value Represents a Range)		0.024	

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

The values presented are for guidance purposes and do not constitute the practice of engineering. East Coast Erosion Blankets LLC (ECEB) ascertains that at the time of manufacture, all information presented herein is accurate and reliable and falls within the ECEB manufacturing product specification variances. If the product does not meet the stated values and ECEB is notified in writing prior to installation, the product will be replaced at no cost to the purchaser. ECEB 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 for this product.