



Material and Performance Specification

ECC-2 Double Net Coconut Rolled Erosion Control Product

Description: The ECC-2 is made with uniformly distributed 100% coconut fiber and two 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-2 has functional longevity of approximately 36 months, but will vary depending on soil and climatic conditions, and is suitable for slopes 1:1 and medium to high flow channels. The ECC-2 meets Type 4 specification requirements established by the Erosion Control Technology Council (ECTC) and Federal Highway Administration's (FHWA) FP-03 Section 713.17.

Materials:

Netting – Top and Bottom	Matrix	Thread
Mediumweight UV Stabilized Polypropylene 0.75" x 0.75" Opening	100% Coconut Fiber 0.55 lbs yd ² 298.4 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
Weight ±10%:	60.0 lbs (27.2 kg)	120.0 lbs (54.4 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 D6475	10.36 oz/yd ² (351.3g/m ²)
Thickness	ASTM D6525	.26 in (6.6mm)
Tensile Strength-MD	ASTM D6818	260 lb/ft (3.8 kN/m)
Elongation-MD	ASTM D6818	20 %
Tensile Strength-TD	ASTM D6818	196 lb/ft (2.9 kN/m)
Elongation-TD	ASTM D6818	20 %
Light Penetration	ASTM D6567	16 %
Water Absorption	ASTM D1117	308 %
* 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**=9.48
	100mm (4in) / hr-30 min	SLR**=13.81
	150mm (6in) / hr-30 min	SLR**=20.12
ECTC Method 3 Shear Resistance	Shear at .50 in soil loss	2.53 lb/ft ²
ECTC Method 4 Germination	Top soil; Fescue; 21 day incubation	485% 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	Calculated	0.015	
C-Factors	ASTM D6459		
Slope Length (L)	≤ 3:1	3:1-2:1	≥ 2:1
< 50 ft (15 m)	0.010	0.023	0.072
50 ft – 100 ft	0.030	0.054	0.090
>100 ft (30 m)	0.064	0.084	0.104
*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	2.30 lbs/ft ² (110 Pa)
Unvegetated Velocity	ASTM D 6460	7.0 ft/s (2.1 m/s)
Vegetated Shear Stress	NA	NA
Vegetated Velocity	NA	NA
*Large-Scale Results obtained by 3 rd Party GAI Accredited Independent Laboratory		

