

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 netsecurely 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.

Matrix:	1	2
	100% Coconut	
Netting:	Type	
	Top: Medium weight UV Stabilized Polypropylen	
	Middle: None	
	Bottom: Medium weight UV Stabilized Polypropylen	
Net Opening:	Top	Middle
	0.75" x 0.75"	0.75" x 0.75"
Thread:	Type	Color
	UV Stabilized Thread	Black
Roll Sizes:	Standard	"A" Size
		Mega
Width:	8 ft 2.4 m	4 ft 1.2 m
Length:	112.5 ft 34.3 m	225 ft 68.6 m
Weight*:	57 lbs 25.9 kg	57 lbs 25.9 kg
Area:	100 yd ² 83.6 m ²	100 yd ² 83.6 m ²
#/Pallet:	25	9
		25

*Weight at time of manufacturing

Index Value Properties*:

Property	Test Method	Typical	
Mass/Unit Area	ASTM D6475	8.30 oz/yd ²	281.4 g/m ²
Thickness	ASTM D6525	0.26 in	6.60 mm
Tensile Strength-MD	ASTM D6818	260 lb/ft	3.79 kN/m
Elongation-MD	ASTM D6818	20 %	
Tensile Strength-TD	ASTM D6818	175 lb/ft	2.55 kN/m
Elongation-TD	ASTM D6818	20.0 %	
Light Penetration	ASTM D6567	16 %	
Density / Specific Gravity	ASTM D792	N/A g/cm ³	
Water Absorption	ASTM D1117	199 %	

*May differ depending upon raw material variations

Slope Performance Design Values*:

Property	Test Method	Value	
C-Factors	ASTM D6459	0.01	
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 3rd Party GAI Accredited Independent Laboratory

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

Test Method	Parameters	Results
	50mm (2in) / hr-30 min	SLR**=8.45
ECTC Method 2 Rainfall	100mm (4in) / hr-30 min	SLR**=10.43
	150mm (6in) / hr-30 min	SLR**=12.90
ECTC Method 3 Shear Resistance	Shear at .50 in soil loss	2.59 lb/ft ²
ECTC Method 4 Germination	Top soil; Fescue; 21 day incubation	772 %

*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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Channel Performance Design Values*:

Property	Test Method	Value		
Unvegetated Shear Stress	ASTM D 6460	2.50	lbs/ft ²	119.70 Pa
Unvegetated Velocity	ASTM D 6460	10.0	ft/s	3.05 m/s
Vegetated Shear Stress	NA	N/A	lbs/ft ²	N/A Pa
Vegetated Velocity	NA	N/A	ft/s	N/A m/s
Manning's N (Value Represents a Range)		0.025		

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