



Material and Performance Specification

ECX-2 Double Net Excelsior Rolled Erosion Control Product

Description: The ECX-2 is made with uniformly distributed 100% Aspen wood excelsior and two polypropylene nets securely sewn together with degradable thread. The tightly compressed blankets are wrapped and include a product label, code and installation guide. The blankets are palletized for easy transportation. The ECX-2 has functional longevity of approximately 24 months, but will vary depending on soil and climatic conditions, and is suitable for slopes 2:1 to 1.5:1 and medium to high flow channels. The ECX-2 meets Type 3.B 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
	Lightweight Photodegradable Polypropylene 0.5" x 0.5" Opening	100% Aspen Excelsior 0.69 lbs yd ² 374.3g/m ²	Degradable 1.50" stitch spacing

Roll Sizes:

	A	Standard	Mega
Width:	3.75 ft (1.15 m)	7.5 ft (2.3 m)	15.0 ft (4.6 m)
Length:	240.0 ft (73.2 m)	120.0 ft (36.6 m)	120.0 ft (36.6 m)
Weight ±10%:	68.0 lbs (30.8 kg)	68.0 lbs (30.8 kg)	136.0 lbs (61.7 kg)
Area:	100 yd ² (83.6 m ²)	100 yd ² (83.6 m ²)	200 yd ² (167.2 m ²)
#/Pallet:	9	16	16

Index Value Properties*:

Property	Test Method	Typical
Mass/Unit Area	ASTM D6475	11.0 oz/yd ² (373 g/m ²)
Thickness	ASTM D6525	.38 in (9.7 mm)
Tensile Strength-MD	ASTM D6818	226 lb/ft (3.3 kN/m)
Elongation-MD	ASTM D6818	23 %
Tensile Strength-TD	ASTM D6818	156 lb/ft (2.3 kN/m)
Elongation-TD	ASTM D6818	26 %
Light Penetration	ASTM D6567	36 %
Water Absorption	ASTM D1117	236 %

* 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**=4.30
	100mm (4in) / hr-30 min	SLR**=5.54
	150mm (6in) / hr-30 min	SLR**=7.13
ECTC Method 3 Shear Resistance	Shear at .50 in soil loss	2.19 lb/ft ²
ECTC Method 4 Germination	Top soil; Fescue; 21 day incubation	535% 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		0.026	
C-Factors	ASTM D6459		
Slope Length (L)	≤ 3:1	3:1-2:1	≥ 2:1
< 50 ft (15 m)	0.035	0.144	0.272
50 ft – 100 ft	0.100	0.172	0.377
>100 ft (30 m)	0.210	0.317	0.541

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

Channel Performance Design Values*:

Property	Test Method	Value
Unvegetated Shear Stress	ASTM D 6460	2.13 lbs/ft ² (102 Pa)
Unvegetated Velocity	ASTM D 6460	10.7 ft/s (3.3 m/s)
Vegetated Shear Stress	NA	NA
Vegetated Velocity	NA	NA

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

