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## Material and Performance Specification

### ECX-1™ Single Net Excelsior Rolled Erosion Control Product

**Description:**

The ECX-1™ is made with uniformly distributed 100% Aspen wood excelsior and one polypropylene net 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-1™ has functional longevity of approximately 12 months, but will vary depending on soil and climatic conditions, and is suitable for slopes 2:1 to 3:1 and low to medium flow channels. The ECX-1™ meets Type 2.C specification requirements established by the Erosion Control Technology Council (ECTC) and Federal Highway Administration's (FHWA) FP-03 Section 713.17.

<b>Matrix:</b>	<b>1</b>	<b>2</b>
	Aspen Wood Excelsior	

<b>Netting:</b>	<b>Type</b>	<b>Net Color</b>
	Top: Lightweight Photodegradable Polypropylene	Green
	Middle: None	
	Bottom: None	

<b>Net Opening:</b>	<b>Top</b>	<b>Middle</b>	<b>Bottom</b>
	0.5" x 0.5"		

<b>Thread:</b>	<b>Type</b>	<b>Color</b>
	Degradable Thread	White

<b>Roll Sizes:</b>	<b>Standard</b>		<b>"A" Size</b>		<b>Mega</b>	
Width:	8 ft	2.4 m	4 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*:	62 lbs	28.1 kg	62 lbs	28.1 kg	124 lbs	56.2 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:	20		9		20	

\*Weight at time of manufacturing.

**Index Value Properties\*:**

Property	Test Method	Typical	
Mass/Unit Area	ASTM D6475	8.80 oz/yd <sup>2</sup>	298.4 g/m <sup>2</sup>
Thickness	ASTM D6525	0.38 in	9.65 mm
Tensile Strength-MD	ASTM D6818	122 lb/ft	1.78 kN/m
Elongation-MD	ASTM D6818	33 %	
Tensile Strength-TD	ASTM D6818	86 lb/ft	1.26 kN/m
Elongation-TD	ASTM D6818	33.0 %	
Light Penetration	ASTM D6567	36 %	
Density / Specific Gravity	ASTM D792	N/A	g/cm <sup>3</sup>
Water Absorption	ASTM D1117	184 %	

\*May differ depending upon raw material variations

**Bench-Scale Testing\* (NTPEP\*\*\*):**

Test Method	Parameters	Results
	50mm (2in) / hr-30 min	SLR**=3.98
ECTC Method 2 Rainfall	100mm (4in) / hr-30 min	SLR**=3.64
	150mm (6in) / hr-30 min	SLR**=3.33
ECTC Method 3 Shear Resistance	Shear at .50 in soil loss	1.72 lb/ft <sup>2</sup>
ECTC Method 4 Germination	Top soil; Fescue; 21 day incubation	519 %

\*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

**Slope Performance Design Values\*:**

Property	Test Method	Value	
<b>C-Factors</b>	ASTM D6459	0.03	
<b>Slope Length (L)</b>	<b>≤ 3:1</b>	<b>3:1-2:1</b>	<b>≥ 2:1</b>
< 50 ft (15 m)	0.034	0.180	N/A
50 ft – 100 ft	0.104	0.202	N/A
>100 ft (30 m)	0.208	0.319	N/A

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

**Channel Performance Design Values\*:**

Property	Test Method	Value		
Unvegetated Shear Stress	ASTM D 6460	1.78	lbs/ft <sup>2</sup>	85.23 Pa
Unvegetated Velocity	ASTM D 6460	8.5	ft/s	2.59 m/s
Vegetated Shear Stress	NA	N/A	lbs/ft <sup>2</sup>	N/A Pa
Vegetated Velocity	NA	N/A	ft/s	N/A m/s
Manning's N (Value Represents a Range)		0.028		

\*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.*

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