Winters Excelsior Company

Material Specifications
WintersChoice Bio

70% Straw / 30% Coconut
Biodegradable Double Net Blanket

WintersChoice™ Products are extended-term, double net erosion control blankets that are machine-assembled using a blend of 70% agricultural straw and 30% coconut fibers. These fibers are evenly distributed throughout the entire area of the blanket to a rough thickness of 1/2" and stitched between biodegradable jute netting using biodegradable cotton thread. Biodegradable thread is used on all of our Bio (Jute) products.

Each blanket is covered on both sides with jute net having openings that are approximately ½" wide x ½" long and are stitched on 1 ½" centers for increased performance capabilities.

Netting options

Bio: Top and bottom Biodegradable jute fiber netting.

All Winters blankets are individually labeled and shrink-wrapped to protect against the weather and damage.

Materials:

70% Certified Weed Free Straw / 30% Coconut Fibers
Biodegradable Jute Netting
Biodegradable Cotton Thread

Roll Sizes:

Area:	**100 yd²**	**500 yd²**
Width:	8 feet	8 feet
Length:	112.5 feet	562.5 feet
Weight:	50 lbs	250 lbs

Physical Characteristics:

Fiber:	70% Certified Weed Free Agricultural Straw, 30% Coconut Fibers
Unit Weight:	0.50 lb/yd² ± 10%
Thread Material:	Cotton
Thread Pattern:	1.5" wide x 4" long
Netting:	Biodegradable Jute Netting
Net Openings:	½" wide x ½" long
Net Configuration:	Jute on both sides

Performance Characteristics:

WintersChoice Bio™ blankets are designed to provide temporary ground cover to reduce erosion, protect seeding, enhance germination, and speed re-vegetation. Functional longevity is up to 24 months depending on soil conditions, climate, geography, and choice of netting. Testing shows WintersChoice Bio™ blankets are suitable for the following applications:

Slopes: up to 1.5 : 1 **Shear Stress:** up to 2.16 lbs/ft².

All figures are based on product at the time it is manufactured.

P.O. Box 39, Highway 21
McWilliams, Al 3 6 7 5 3
800-248-7237
www.WintersExcelsior.com
406 South Obee Rd
Hutchinson, KS 67501

WintersChoice Bio™ ~ Double Net Performance Data Sheet

WintersChoice Bio™ blankets are constructed of 70% Natural Straw fibers and 30% coconut fibers stitched between two biodegradable jute nets using biodegradable cotton thread. Our blankets are designed to protect against erosion by providing temporary ground cover while enhancing seed germination and assisting with vegetation establishment.
Functional longevity is up to 24 months depending on product used and site conditions. Soil erosion is controlled by the root system, stem and leaf structure of the mature vegetation after the blankets degrade.

WintersChoice Bio™ Double Net blankets are rated for medium-flow channels and up to 2.16 lbs/ft² shear stress. Additionally, our blankets have a design C-Factor of .35 and are typically appropriate for up to 1.5:1 slopes.

Additional Physical Properties as tested and observed:

Property	Test Method	Typical Values*
Mass per Unit Area	ASTM D 6475	8.48 oz/yd²
Thickness	ASTM D 6525	0.31 inches
Light Penetration	ASTM D 6567	13.6 %
Water Absorption	ASTM D 1117/ECTC-TASC 00197	415%
Swell	ECTC Guidelines	55%
Resiliency	ASTM D 6524	74%
MD Tensile Strength	ASTM D 4595	201.6 lb/ft
MD Elongation	ASTM D 4595	21.5%
TD Tensile Strength	ASTM D 4595	160.8 lb/ft
TD Elongation	ASTM D 4595	18%

ECTC Bench Scale Testing **

Description of Test Method	Test Method	Results
ECTC Method 2 -Determination of un-vegetated RECP ability to protect soil from Rain Splash and associated runoff.	2 in. (50mm)/hr for 30 minutes 4 in. (100mm)/hr for 30 minutes 6 in. (150mm)/hr for 30 minutes	Soil Loss Ratio = 10.70 Soil Loss Ratio = 13.12 Soil Loss Ratio = 16.08
ECTC Method 3 – Determination of un-vegetated RECP ability to protect soil from Hydraulically Induced Shear stress.	Shear Loss Curve Intercept	2.16 psf@ ½" soil loss
ECTC Method 4 – Determination of Temporary Degradable RECP performance in encouraging seed germination and plant growth.	% Improvement/Increased Biomass	345%

* Index values may vary from measurements taken at the time of manufacturing due to environmental conditions affecting gains or losses in moisture.
** Soil Loss Ratios, as reported by NTPEP = Soil Loss Bare Soil/Soil Loss with RECP (Note: soil loss is based on regression analysis)

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