

# 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  $\frac{1}{2}$ " wide x  $\frac{1}{2}$ " long and are stitched on 1  $\frac{1}{2}$ " 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:  $0.50 \text{ lb/yd}^2 \pm 10\%$ 

Thread Material: Cotton

Thread Pattern: 1.5" wide x 4" long

Netting: Biodegradable Jute Netting

Net Openings:  $\frac{1}{2}$ " wide x  $\frac{1}{2}$ " long Net Configuration: Jute on both sides

#### **Performance Characteristics:**

WintersChoice  $Bio^{TM}$  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  $Bio^{TM}$  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.

## 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	<b>Test Method</b>	Typical Values*
Mass per Unit Area	ASTM D 6475	$8.48 \text{ oz/yd}^2$
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	2 in. (50mm)/hr for 30 minutes	Soil Loss Ratio =	10.70
RECP ability to protect soil from Rain Splash and	4 in. (100mm)/hr for 30 minutes	Soil Loss Ratio =	13.12
associated runoff.	6 in. (150mm)/hr for 30 minutes	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	% Improvement/Increased		
Degradable RECP performance in encouraging seed germination and plant growth.	Biomass	345%	

<sup>\*</sup> Index values may vary from measurements taken at the time of manufacturing due to environmental conditions affecting gains or losses in moisture.

<sup>\*\*</sup> Soil Loss Ratios, as reported by NTPEP = Soil Loss Bare Soil/Soil Loss with RECP (Note: soil loss is based on regression analysis)







## Material Specifications

## WintersChoice<sup>TM</sup>

70% Straw / 30% Coconut Double Net Blanket



WintersChoice<sup>™</sup> 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 3/8″ and stitched to your choice of netting using high strength degradable thread. Biodegradable thread is used on our Bio (Jute) products.

Each blanket is covered on both sides with a single photodegradable polypropylene or jute net. Net openings are approximately  $\frac{1}{2}$  wide x  $\frac{1}{2}$  long and are stitched on 1  $\frac{1}{2}$  centers for increased performance capabilities.

## **Netting options:**

Standard: Top - UV Stabilized Polypropylene black net.

Bottom - Degradable Polypropylene green net.

Bio: Top and bottom Biodegradable jute fiber netting.

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

#### **Materials:**

70% Certified Weed Free Straw / 30% Coconut Fibers UV Stabilized polypropylene or Biodegradable Jute Netting Degradable polypropylene or Biodegradable 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:  $0.50 \text{ lb/yd}^2 \pm 10\%$ 

Thread Material: High Tensile Polypropylene or High Tensile Biodegradable Thread

Thread Pattern: 1.5" wide x 4" long

Netting: UV Stabilized Polypropylene (green/black) or Jute Netting

Net Openings:  $\frac{1}{2}$  wide x  $\frac{1}{2}$  long

Net Configuration: Black-Top, Green- Bottom

## **Performance Characteristics:**

WintersChoice<sup>™</sup> 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<sup>™</sup> and WintersChoice<sup>™</sup> Bio blankets are suitable for the following applications:

**Slopes:** up to 1.5:1 **Shear Stress:** up to 2.16 lbs/ft<sup>2</sup>.

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

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## WintersChoice™ - Double Net Performance Data Sheet

WintersChoice™ blankets are constructed of 70% Natural Straw fibers and 30% coconut fibers stitched between two UV Stabilized polypropylene nets using degradable thread. WintersChoice™ Bio blankets offer two biodegradable Jute nets and high tensile biodegradable 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™ 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	<b>Test Method</b>	Typical Values*
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Swell	ECTC Guidelines	55%
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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-	2 in. (50mm)/hr for 30 minutes	Soil Loss Ratio = 1	0.70
	4 in. (100mm)/hr for 30 minutes	Soil Loss Ratio = 1	<u>3.12</u>
Rain Splash and associated runoff.	6 in. (150mm)/hr for 30 minutes	Soil Loss Ratio = 1	6.08
ECTC Method 3 - Determination of un-			
	Shear Loss Curve Intercept	2.16 psf@ ½" soil loss	
Hydraulically Induced Shear stress.	_	2.10 psi = 72 son iose	
ECTC Method 4 – Determination of			
Temporary Degradable RECP performance in	% Improvement/Increased Biomass	345%	
encouraging seed germination and plant	improvement, mereasea Biolitass	040 /0	
growth.			

<sup>\*</sup> Index values may vary from measurements taken at the time of manufacturing due to environmental conditions affecting gains or losses in moisture.

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