

# MATERIAL PROPERTY DATA SHEET

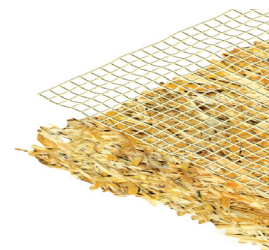


## BioNet® S75BN™

Short Term • Single Net • Straw Matrix •  
Biodegradable • Erosion Control Blanket

### DESCRIPTION

S75BN temporary Erosion Control Blanket is composed of a 100% weed free agricultural straw matrix mechanically (stitch) bonded on two-inch centers to a single biodegradable, jute/scrim net. Thread utilized in the construction of the blanket is biodegradable cotton. S75BN blanket is recommended applications requiring erosion protection for a period up to twelve months. The material is fully degradable. The net, thread, and the fiber matrix is biodegradable. Actual field longevity is dependent on soil and climatic conditions.



Each roll of S75BN is made in the USA and manufactured under Western Green's Quality Assurance Program to ensure a continuous distribution of fibers and consistent thickness.

### Material Content

Matrix	Straw
Netting	Jute Scrim, Biodegradable, Leno weave Single Net
Thread	Biodegradable Cotton or Rayon

### Standard Roll Sizes

Width	8 ft (2.4 m)	16 ft (4.9 m)
Length	112 ft (34.1 m)	563 ft (171.0 m)
Weight ± 10%	50 lb (22.7 kg)	500 lb (227.0 kg)
Area	100 sy (83.6 m <sup>2</sup> )	1000 SY (836.0 m <sup>2</sup> )

Material available in custom roll sizes

### Approvals & Classification

Classification	FHWA: Type 2.C / ECTC: Type 2.C
TTI Approvals	Class 1 Type A, C
NTPEP Number	ECP-2018-04-002

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Index Property	Test Method	Typical
Thickness	ASTM D6525	0.28 in. (7 mm)
Mass/Unit Area	ASTM D6566	8.0 oz/sy (275 g/sm)
Tensile Strength – MD	ASTM D6818	125 lbs/ft (1.8 kN/m)
Tensile Strength – TD	ASTM D6818	90 lbs/ft (1.3 kN/m)
Elongation - MD	ASTM D6818	15%
Elongation – TD	ASTM D6818	15%
Density/Specific Gravity	D792	N/A
Light Penetration	ASTM D6567	15%
Biomass Improvement	ASTM D7322	375%
Water Absorption	ASTM D1117	400%

### Design Parameters

Property	Unvegetated	Vegetated <sup>3</sup>
RUSLE C Factor <sup>2</sup>	0.02	N/A
Slope Maximum Gradient <sup>1</sup>	3H:1V	N/A
Permissible Shear Stress <sup>2</sup>	1.6 psf (75 Pa)	N/A
Permissible Velocity <sup>2</sup>	5.0 fps (1.5 m/s)	N/A

### Manning's n Roughness (HEC-15)

$\tau_{lower}$	$\tau_{mid}$	$\tau_{upper}$
0.040	0.030	0.030

1 Maximum Gradient a recommendation for typical insillations.

2 Hydraulic thresholds compliant with ASTM D6459/D6460 but generalized for typical applications.

3 Vegetated values dependent on established stand of vegetation

Rev. 4.2023

Scan for additional and updated product information, or [click here](#).



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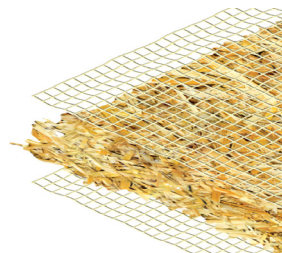


## BioNet® S150BN™

Short Term • Double Net • Straw Matrix •  
Biodegradable • Erosion Control Blanket

### DESCRIPTION

S150BN temporary Erosion Control Blanket is composed of 100% weed free agricultural straw matrix mechanically (stitch) bonded on two-inch centers between two biodegradable, jute/scrim nets. Thread utilized in the construction of the blanket is biodegradable cotton. The S150BN blanket is recommended for use in applications requiring erosion protection for a period up to twelve months. The material is fully degradable. The net, thread, and the fiber matrix is biodegradable. Actual field longevity is dependent on soil and climatic conditions.



Each roll of S150BN is made in the USA and manufactured under Western Green's Quality Assurance Program to ensure a continuous distribution of fibers and consistent thickness.

Material Content	
Matrix	Straw

Netting	Top & Bottom Net: Jute Scrim, Biodegradable, Leno Weave	Double Net
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Thread	Biodegradable Cotton or Rayon
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### Standard Roll Sizes

Width	8 ft	(2.4 m)	16 ft	(4.9 m)
Length	112 ft	(34.1 m)	563 ft	(171.0 m)
Weight ± 10%	50 lb	(22.7 kg)	500 lb	(227.0 kg)
Area	100 sy	(83.6 m <sup>2</sup> )	1000 SY	(836.0 m <sup>2</sup> )

Material available in custom roll sizes

### Approvals & Classification

Classification	FHWA: Type 2.D / ECTC: Type 2.D
TTI Approvals	N/A
NTPEP Number	ECP-2020-01-17

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Index Property	Test Method	Typical	
Thickness	ASTM D6525	0.30 in.	(8 mm)
Mass/Unit Area	ASTM D6566	8.0 oz/sy	(275 g/sm)
Tensile Strength – MD	ASTM D6818	190 lbs/ft	(2.8 kN/m)
Tensile Strength – TD	ASTM D6818	150 lbs/ft	(2.2 kN/m)
Elongation - MD	ASTM D6818	15%	
Elongation – TD	ASTM D6818	15%	
Density/Specific Gravity	D792	N/A	
Light Penetration	ASTM D6567	15%	
Biomass Improvement	ASTM D7322	450%	
Water Absorption	ASTM D1117	400%	

### Design Parameters

Property	Unvegetated	Vegetated <sup>3</sup>
RUSLE C Factor <sup>2</sup>	0.04	N/A
Slope Maximum Gradient <sup>1</sup>	2H:1V	N/A
Permissible Shear Stress <sup>2</sup>	1.9 psf (90 Pa)	N/A
Permissible Velocity <sup>2</sup>	6.0 fps (1.8 m/s)	N/A

### Manning's n Roughness (HEC-15)

$\tau_{lower}$	$\tau_{mid}$	$\tau_{upper}$
0.048	0.034	0.031

1 Maximum Gradient a recommendation for typical insillations.

2 Hydraulic thresholds compliant with ASTM D6459/D6460 but generalized for typical applications.

3 Vegetated values dependent on established stand of vegetation

Rev. 4.2023

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