



Material and Performance Specification Sheet

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A **tesar** Company

S75BN Erosion Control Blanket

The short-term single net erosion control blanket shall be a machine-produced mat of 100% agricultural straw with a functional longevity of up to 12 months. (NOTE: functional longevity may vary depending upon climatic conditions, soil, geographical location, and elevation). The blanket shall be of consistent thickness with the straw evenly distributed over the entire area of the mat. The blanket shall be covered on the top side with a 100% biodegradable woven natural organic fiber netting. The netting shall consist of machine directional strands formed from two intertwined yarns with cross directional strands interwoven through the twisted machine strands (commonly referred to as a Leno weave) to form an approximate 0.50 x 1.0 (1.27 x 2.54 cm) mesh. The blanket shall be sewn together on 1.50 inch (3.81 cm) centers with degradable thread.

The S75BN shall meet requirements established by the Erosion Control Technology Council (ECTC) Specification and the US Department of Transportation, Federal Highway Administration's (FHWA) *Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects, FP-03 Section 713.17 as a type 2.C Short-term Single Net Erosion Control Blanket*.

The blanket shall be manufactured with a colored thread stitched along both outer edges (approximately 2-5 inches [5-12.5 cm] from the edge) as an overlap guide for adjacent mats.

Material Content		
Matrix	100% Straw Fiber	0.5 lbs/yd ² (0.27 kg/m ²)
Nettings	Top side only- Leno Woven 100% biodegradable natural organic fiber	9.3 lb/1000 ft ² (4.5 kg/100 m ²) approx. weight
Thread	Biodegradable	

S75BN is available in the following standard roll sizes:

Width	6.67 ft (2.03 m)
Length	108 ft (32.92 m)
Weight ± 10%	46.4 lbs (21.05kg)
Area	80.0 yd ² (66.9 m ²)

Index Value Properties:

Property	Test Method	Typical
Thickness	ASTM D6525	0.24 in (6.1 mm)
Resiliency	ECTC Guidelines	81.4%
Water Absorbency	ASTM D1117	257%
Mass/Unit Area	ASTM 6475	9.99 oz/yd ² (339.7 g/m ²)
Swell	ECTC Guidelines	15.7%
Smolder Resistance	ECTC Guidelines	Yes
Stiffness	ASTM D1388	6.92 oz-in
Light Penetration	ECTC Guidelines	9.1%
Tensile Strength –MD	ASTM D6818	187.2 lbs/ft (2.78 kN/m)
Elongation – MD	ASTM D6818	6.7%
Tensile Strength – TD	ASTM D6818	193.2 lbs/ft (2.86 kN/m)
Elongation – TD	ASTM D6818	8.5%

Performance Design Values:

Maximum Permissible Shear Stress	
Unvegetated Shear Stress	1.60 lbs/ft ² (76 Pa)
Unvegetated Velocity	5.00 ft/s (1.52 m/s)

Slope Design Data: C Factors			
	Slope Gradients (S)		
Slope Length (L)	≤ 3:1	3:1 – 2:1	≥ 2:1
≤ 20 ft (6 m)	0.029	NA	NA
20-50 ft	0.11	NA	NA
≥ 50 ft (15.2 m)	0.19	NA	NA

Bench Scale Testing* (NTPEP):

Test Method	Parameters	Results
ECTC Method 2 Rainfall	50 mm (2 in)/hr for 30 min	SLR** = 6.63
	100mm (4 in)/hr for 30 min	SLR** = 7.25
	150 mm (6 in)/hr for 30 min	SLR** = 7.92
ECTC Method 3 Shear Resistance	Shear at 0.50 inch soil loss	2.07 lbs/ft²
ECTC Method 4 Germination	Top Soil, Fescue, 21 day incubation	464% improvement of biomass

Roughness Coefficients- Unveg.	
Flow Depth	Manning's n
≤ 0.50 ft (0.15 m)	0.055
0.50 – 2.0 ft	0.055 – 0.021
≥ 2.0 ft (0.60 m)	0.021

* Bench Scale tests should not be used for design purposes

** Soil Loss Ratio = Soil loss with Bare Soil/Soil Loss with RECP (soil loss is based on regression analysis)

Product Participant of:

