Material and Performance Specification Sheet

North American Green
14649 Highway 41 North
Evansville, IN 47725
800-772-2040
FAX: 812-867-0247
www.nagreen.com

A tensar. Company

DS75 Erosion Control Blanket

The ultra short-term single net erosion control blanket shall be a machine-produced mat of 100% agricultural straw with a functional longevity of up to 45 days. (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 polypropylene netting having an approximate 0.50 x 0.50 (1.27 x 1.27 cm) mesh with photodegradable accelerators to provide breakdown of the netting within approximately 45 days, depending upon geographical location and elevation. The blanket shall be sewn together on 1.50 inch (3.81 cm) centers with degradable thread.

The DS75 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 1.C Ultra 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, lightweight photodegradable with photo accelerators	1.5 lb/1000 ft^2 (0.73 kg/100 m^2) approx. weight
Thread	degradable	

DS75 is available in the following standard roll sizes:

Width	4.0 ft (1.2 m)	6.67 ft (2.03 m)	16 ft (4.87 m)
Length	135 ft (41.14 m)	108 ft (32.92 m)	108 ft (32.92 m)
Weight ± 10%	30 lbs (13.6 kg)	40 lbs (18.14 kg)	96 lbs (43.54 kg)
Area	60 yd^2 (50.16 m^2)	80.0 yd^2 (66.9 m^2)	192 yd^2 (165.5 m^2)

Index Value Properties:

Property	Test Method	Typical
Thickness	ASTM D6525	0.39 in (9.9 mm)
Resiliency	ECTC Guidelines	78.8%
Water Absorbency	ASTM D1117	435%
Mass/Unit Area	ASTM 6475	10.54 oz/yd^2 (351.6 g/m^2)
Swell	ECTC Guidelines	15%
Smolder Resistance	ECTC Guidelines	Yes
Stiffness	ASTM D1388	6.31 oz-in
Light Penetration	ECTC Guidelines	9.4%
Tensile Strength –MD	ASTM D6818	102 lbs/ft (1.51 kN/m)
Elongation – MD	ASTM D6818	20%
Tensile Strength – TD	ASTM D6818	68.4 lbs/ft (1.01 kN/m)
Elongation – TD	ASTM D6818	23.6%

Bench Scale Testing* (NTPEP):

Test Method	Parameters	Results
ECTC Method 2 Rainfall	50 mm (2 in)/hr for 30 min	SLR** = 9.72
	100mm (4 in)/hr for 30 min	SLR** = 8.80
	150 mm (6 in)/hr for 30 min	SLR** = 8.31
ECTC Method 3 Shear Resistance	**Shear at 0.50 inch soil loss**	**1.95 lbs/ft^2**
ECTC Method 4 Germination	Top Soil, Fescue, 21 day incubation	177% improvement of biomass

* 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)

Updated 3/09

Performance Design Values:

Maximum Permissible Shear Stress	
Unvegetated Shear Stress	1.55 lbs/ft^2 (74 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

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

Product Participant of: QDOR Performance Verified