



## Specification Sheet

### VMax® S200® Turf Reinforcement Mat

#### DESCRIPTION

The composite turf reinforcement mat (C-TRM) shall be a machine-produced mat of 100% straw fiber matrix incorporated into permanent three-dimensional turf reinforcement matting. The matrix shall be evenly distributed across the entire width of the matting and stitch bonded between a heavy duty UV stabilized nettings with 0.50 x 0.50 inch (1.27 x 1.27 cm) openings, an heavy UV stabilized, dramatically corrugated (crimped) intermediate netting with 0.5 x 0.5 inch (1.27 x 1.27 cm) openings, and covered by an heavy duty UV stabilized nettings with 0.50 x 0.50 inch (1.27 x 1.27 cm) openings. The middle corrugated netting shall form prominent closely spaced ridges across the entire width of the mat. The three nettings shall be stitched together on 1.50 inch (3.81cm) centers with UV stabilized polypropylene thread to form permanent three-dimensional turf reinforcement matting. All mats shall be manufactured with a colored thread stitched along both outer edges as an overlap guide for adjacent mats.

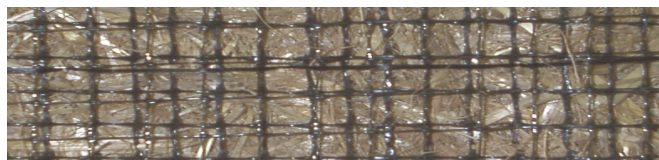
The S200 shall meet Type 5A, 5B, and 5C specification requirements established by the Erosion Control Technology Council (ECTC) and Federal Highway Administration's (FHWA) FP-03 Section 713.18

#### Material Content

Component	Description	Weight
Matrix	100% Straw Fiber	0.50 lb/sq yd (0.19 kg/sm)
Netting	Top and Bottom, UV-Stabilized Polypropylene	3 lb/1000 sq ft (1.47 kg/100 sm)
	Middle, Corrugated UV-Stabilized Polypropylene	16 lb/1000 sf (7.81 kg/100 sm)
Thread	Polypropylene, UV Stable	

#### Standard Roll Sizes

Width	6.5 ft (2.0 m)	8 ft (2.44m)
Length	55.5 ft (16.9 m)	90 ft (27.4 m)
Weight ± 10%	34 lbs (15.42 kg)	70 lbs (31.8 kg)
Area	40 sq yd (33.4 sm)	80 sq. yd. (66.8 sm)



Index Property	Test Method	Typical
Thickness	ASTM D6525	0.50 in. (12.70 mm)
Resiliency	ASTM 6524	70%
Density	ASTM D792	0.91 g/cm <sup>3</sup>
Mass/Unit Area	ASTM 6566	12.0 oz/sy (408 g/sm)
UV Stability	ASTM D4355/1000 HR	80%
Porosity	ECTC Guidelines	99%
Light Penetration	ASTM D6567	15%
Tensile Strength - MD	ASTM D6818	450 lbs/ft (6.67 kN/m)
Elongation - MD	ASTM D6818	35%
Tensile Strength - TD	ASTM D6818	450 lbs/ft (6.67 kN/m)
Elongation - TD	ASTM D6818	20%

#### Design Permissible Shear Stress

	Short Duration	Long Duration
Phase 1: Unvegetated	2.3 psf (110 Pa)	2.3 psf (110 Pa)
Phase 2: Partially Veg.	7.5 psf (360 Pa)	7.5 psf (360 Pa)
Phase 3: Fully Veg.	10.0 psf (480 Pa)	8.0 psf (383 Pa)
Unvegetated Velocity	8.5 fps (2.6 m/s)	
Vegetated Velocity	18 fps (5.5 m/s)	

### Slope Design Data: C Factors

Slope Length (L)	Slope Gradients (S)		
	≤ 3:1	3:1 – 2:1	≥ 2:1
≤ 20 ft (6 m)	0.0010	0.0209	0.0507
20-50 ft	0.0081	0.0266	0.0574
≥ 50 ft (15.2 m)	0.0455	0.0555	0.081

### Roughness Coefficients – Unveg.

Flow Depth	Manning's n
≤ 0.50 ft (0.15 m)	0.038
0.50 – 2.0 ft	0.038-0.025
≥ 2.0 ft (0.60 m)	0.025



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