



SUPPLEMENTAL SPECIFICATION

SC250



The composite turf reinforcement mat (C-TRM) shall be a machine-produced mat of 70% straw/30% coconut fiber matrix incorporated into a permanent three-dimensional turf reinforcement matting.

The matrix shall be stitch bonded between a heavy duty UV stabilized bottom net with 0.50 x 0.50 inch (1.27 x 1.27 cm) openings, a ultra heavy duty UV stabilized, dramatically corrugated (crimped) intermediate netting with 0.50 x 0.50 inch (1.27 x 1.27 cm) openings, and covered by a heavy duty UV stabilized top net 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 nets shall be stitched together on 1.50 inch (3.81 cm) centers with UV stabilized polypropylene thread to form a permanent three-dimensional turf reinforcement matting.

<u>Property</u>	<u>Test Method</u>	<u>Typical</u>
Thickness	ASTM D6525	0.72 in (18.29 mm)
Resiliency	ASTM D1777	95.20%
Density	ASTM D792	0.529 oz/in ³ (0.915 g/cm ³)
Mass / Unit Area	ASTM D6566	17.88 oz/yd ² (606 g/m ²)
Porosity	ECTC Guidelines	99%
Stiffness	ASTM D1388/ECTC	222.65 oz-in (2,485,051 mg-cm)
Light Penetration	ECTC Guidelines	8.90 %
MD Tensile Strength	ASTM D6818 [D5035]	620 lbs/ft (9.05 kN/m) [520 lbs/ft (7.59 kN/m)]
MD Elongation	ASTM D6818 [D5035]	35 % [32%]
TD Tensile Strength	ASTM D6818 [D5035]	737 lbs/ft (10.75 kN/m) [784 lbs/ft (11.44 kN/m)]
TD Elongation	ASTM D6818 [D5035]	16 % [17.50%]

SC250 PERMANENT TURF REINFORCEMENT MATTING ONLY

<u>Property</u>	<u>Test Method</u>	<u>Typical</u>
Thickness	ASTM D6525	0.48 in (12.19 mm)
UV Stability	ASTM D4355*	100%
MD Tensile Strength	ASTM D6818 [D5035]	655 lbs/ft (9.56 kN/m) [500 lbs/ft (7.30 kN/m)]
MD Elongation	ASTM D6818 [D5035]	25% [27%]
TD Tensile Strength	ASTM D6818 [D5035]	666 lbs/ft (9.72 kN/m) [700 lbs/ft (10.21 kN/m)]
TD Elongation	ASTM D6818 [D5035]	16% [15%]

*ASTM D1682 (4 inch strip) Tensile Strength and percent Strength Retention of material following 1000 hrs exposure in Xenon-Arc Weatherometer.
MD – Machine direction; TD – Transverse direction

Bench Scale Testing[†]

<u>Test Method - Description</u>	<u>Parameters</u>	<u>Results</u>
ECTC Method 2 – Determination of unvegetated RECP's ability to protect soil from rain splash and associated runoff	50 mm (2 in)/hr for 30 min	Soil loss ratio* = 18.25
	100 mm (4 in)/hr for 30 min	Soil loss ratio* = 20.97
	150 mm (6 in)/hr for 30 min	Soil loss ratio* = 22.74
ECTC Method 3 – Determination of unvegetated RECP's ability to protect soil from hydraulically-induced shear stress. Failure criteria = 0.50 inch soil loss	Shear: 3.02 lbs/ft ² for 30 min	Soil loss: 53g
	Shear: 5.57 lbs/ft ² for 30 min	Soil loss: 146g
	Shear: 5.91 lbs/ft ² for 30 min	Soil loss: 215g
	Shear at 0.50 inch soil loss (450g)	7.7 lbs/ft²
ECTC Draft Method 4 – Determination of temporary RECP performance in encouraging seed germination and plant growth	Top soil; Fescue (Kentucky 31); 21 day incubation 27° C ± 2° & approximately 50% RH	Percent improvement = 523% (increased biomass)
* Soil Loss Ratio = Soil Loss with Bare Soil / Soil Loss with RECP (NOTE: Soil loss based on regression analysis)		

[†]Bench Scale Performance Testing

Bench scale tests are index property tests. These tests are not indicative of field performance and therefore should not be used in design to establish performance levels for rolled erosion control products. Bench scale tests are performed according to methods developed by the Erosion Control Technology Council (ECTC).