

MATERIAL PROPERTY DATA SHEET



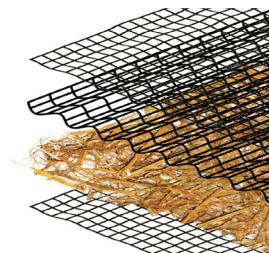
VMax® SC250™

Permanent • Triple Net • Organic Fiber Matrix •
Turf Reinforcement Mat

DESCRIPTION

SC250 Turf Reinforcement Mat (TRM) is composed of 70% straw and 30% coconut fibers mechanically (stitch) bound between a three-dimensional UV stabilized, synthetic net structure. Stitching is secured on two-inch centers using UV stabilized, synthetic thread. SC250 is a permanent, three-dimensional TRM that provides immediate erosion protection and long-term turf reinforcement and is intended for applications requiring erosion protection for greater than thirty-six months.

Each roll of SC250 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/Coconut
Netting	Top Net: Mediumweight, UV stable
	Middle Net: Corrugated Ultra-Heavyweight, UV stable
	Bottom Net: Mediumweight, UV stable
Thread	Synthetic, UV Stable

Standard Roll Sizes				
Width	8 ft	(2.4 m)	6.5 ft	(2.0 m)
Length	90 ft	(27.4 m)	55.5 ft	(17.0 m)
Weight ± 10%	70 lb	(32.0 kg)	34 lb	(15.5 kg)
Area	80 sy	(66.9 m ²)	40 sy	(33.4 m ²)

Material available in custom roll sizes

Approvals & Classification	
Classification	FHWA: Type 5.C / ECTC: Type 5.C
TTI Approvals	Class 2 Type H
NTPEP Number	ECP-2019-03-014

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Index Property	Test Method	Typical	
Thickness	ASTM D6525	0.58 in.	(15 mm)
Mass/Unit Area	ASTM D6566	15.0 oz/sy	(500 g/sm)
Tensile Strength – MD	ASTM D6818	700 lbs/ft	(10.2 kN/m)
Tensile Strength – TD	ASTM D6818	675 lbs/ft	(9.9 kN/m)
Elongation - MD	ASTM D6818	30%	
Elongation – TD	ASTM D6818	20%	
UV Stability	ASTM D4355	80% @1000 hr	
Light Penetration	ASTM D6567	5%	
Biomass Improvement	ASTM D7322	400%	
Specific Gravity	ASTM D792	57.4 lb/ft ³	(0.92 g/cm ³)
Porosity	ECTC	N/A	

Design Parameters		
Property	Unvegetated	Vegetated ³
RUSLE C Factor ²	0.05	N/A
Slope Maximum Gradient ¹	0.5H:1V	0.5H:1V
Permissible Shear Stress ²	3.0 psf (145 Pa)	10.0 psf (480 Pa)
Permissible Velocity ²	9.5 fps (2.9 m/s)	15 fps (4.6 m/s)
τ_{veg} / τ_{TRM} (HEC-15)	N/A	0.67

Manning's n Roughness (HEC-15)		
τ_{lower}	τ_{mid}	τ_{upper}
0.038	0.032	0.027

1 Maximum Gradient a recommendation for typical installations.

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

3 Vegetated values dependent on established stand of vegetation



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