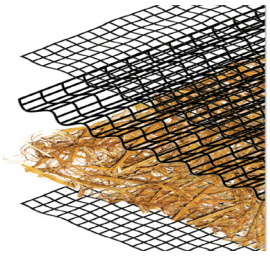
MATERIAL PROPERTY DATA SHEET

VMax® S200™

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

DESCRIPTION

S200 Turf Reinforcement Mat (TRM) is composed of 100% straw 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. S200 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 S200 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
Netting	Top Net: Medium-weight, UV stable Middle Net: Corrugated Heavyweight, UV stable Bottom Net: Medium-weight, UV stable
Thread	Synthetic, UV Stable

Standard Roll Sizes		
Width	8 ft	(2.4 m)
Length	90 ft	(27.4 m)
Weight ± 10%	64 lb	(29.0 kg)
Area	80 sy	(66.9 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-2022-01-010

Index Property	Test Method	Typical	
Thickness	ASTM D6525	0.50 in.	(13 mm)
Mass/Unit Area	ASTM D6566	12.0 oz/sy	(400 g/sm)
Tensile Strength – MD	ASTM D6818	450 lbs/ft	(6.6 kN/m)
Tensile Strength – TD	ASTM D6818	450 lbs/ft	(6.6 kN/m)
Elongation - MD	ASTM D6818	30%	
Elongation – TD	ASTM D6818	20%	
UV Stability	ASTM D4355	80% @1000 hr	
Light Penetration	ASTM D6567	15%	
Biomass Improvement	ASTM D7322	300%	
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]	2.3 psf (110 Pa)	10.0 psf (480 Pa)
Permissible Velocity[2]	8.5 fps (2.6 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	0.030	0.026

1 Maximum Gradient a recomendation 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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Scan for additional and updated product information, or click here.

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