

MATERIAL PROPERTY DATA SHEET



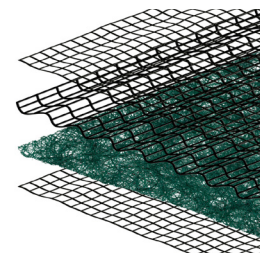
VMax[®] P550[™]

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

DESCRIPTION

P550 Turf Reinforcement Mat (TRM) is composed of 100% synthetic fibers mechanically (stitch) bound between a three-dimensional UV stabilized, heavy duty synthetic net structure. Stitching is secured on two-inch centers using UV stabilized, synthetic thread. P550 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 P550 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	Synthetic
Netting	Top Net: Heavyweight, UV stable
	Middle Net: Corrugated Ultra-Heavyweight, UV stable
	Bottom Net: Heavyweight, UV stable
Thread	Synthetic, UV Stable

Standard Roll Sizes

Width	8 ft (2.4 m)	6.5 ft (2.0 m)
Length	67.5 ft (20.5 m)	55.5 ft (17.0 m)
Weight ± 10%	78 lb (36.0 kg)	52 lb (24.0 kg)
Area	60 sy (50.1 m ²)	40 sy (33.4 m ²)

Material available in custom roll sizes

Approvals & Classification

Classification	FHWA: Type 5.C / ECTC: 5.D
TTI Approvals	Class 2 Type H
NTPEP Number	ECP-2019-03-012

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Index Property Test Method Typical

Thickness	ASTM D6525	0.63 in. (16 mm)
Mass/Unit Area	ASTM D6566	21.0 oz/sy (700 g/sm)
Tensile Strength – MD	ASTM D6818	1,000 lbs/ft (14.6 kN/m)
Tensile Strength – TD	ASTM D6818	1,000 lbs/ft (14.6 kN/m)
Elongation - MD	ASTM D6818	25%
Elongation – TD	ASTM D6818	20%
UV Stability	ASTM D4355	90% @1000 hr
Light Penetration	ASTM D6567	10%
Biomass Improvement	ASTM D7322	400%
Specific Gravity	ASTM D792	57.4 lb/ft ³ (0.92 g/cm ³)
Porosity	ECTC	95%

Design Parameters

Property	Unvegetated	Vegetated ³
RUSLE C Factor ²	0.03	N/A
Slope Maximum Gradient ¹	0.5H:1V	0.5H:1V
Permissible Shear Stress ²	3.3 psf (160 Pa)	14.0 psf (670 Pa)
Permissible Velocity ²	12.0 fps (3.7 m/s)	20.0 fps (6.1 m/s)
τ_{veg} / τ_{TRM} (HEC-15)	N/A	0.55

Manning's n Roughness (HEC-15)

τ_{lower}	τ_{mid}	τ_{upper}
0.040	0.031	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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