

MATERIAL PROPERTY DATA SHEET



VMax[®] P550[™]

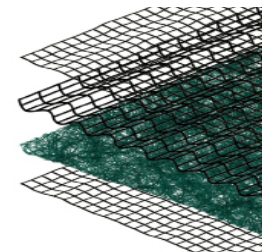
Permanent • Triple Net • Synthetic Fiber Matrix •
Turf Reinforcement Mat

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 North American Green's Quality Assurance Program to ensure a continuous distribution of fibers and consistent thickness.

P550 is compliant and/or exempt with the Build America, Buy America Act, §§ 70901–70927 of the Investment and Jobs Act (Pub L. 117-58), 2 CFR Part 184 – Buy America Preferences for Infrastructure Projects and OMB Memorandum M-22-11.



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)
Part Number	P550-8X68		P550-6.5X55.5	

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 insllations.

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

3 Vegetated values dependent on established stand of vegetation

