

MATERIAL PROPERTY DATA SHEET



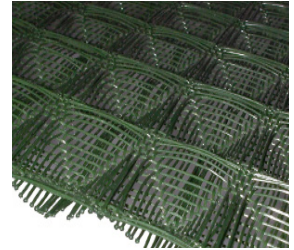
Stormwater Innovation

TMAX™

Permanent • 3-D Woven • UV Stable •
High Performance Turf Reinforcement Mat

DESCRIPTION

TMAX is a High-Performance Turf Reinforcement Mat (HP-TRM) produced by weaving 100% UV-stabilized, high denier synthetic mono-filament yarns woven into permanent, high-strength, three-dimensional structure. The optimized properties of the material provide immediate erosion control with excellent vegetation establishment and class-leading long-term turf reinforcement. Additionally, the high strength at low elongation is ideal for slope stability applications (when paired with deep-seated, high strength anchors) and is unique compared to other HPTRMs. The design life of TMAX is rated at fifty years in typical installations, however, can vary based on conditions. TMAX is made in the USA and monitored by quality assurance testing at a GAI-LAP accredited laboratory.



TMAX 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				
Woven, Single Layer		Green or Tan		
Standard Roll Sizes				
Width	11.5 ft	(3.5 m)	11.5 ft	(3.5 m)
Length	78 ft	(24.0 m)	156 ft	(47.5 m)
Weight ± 10%	75 lb	(35.0 kg)	150 lb	(70.0 kg)
Area	100 sy	(83.6 m²)	200 SY	(167.0 m²)
Part Number	TMAX-100G		TMAX-11.5X156	

Material available in custom roll sizes

Approvals & Classification	
Classification	FHWA: Type 5.C / ECTC: 5.F
TTI Approvals	N/A
NTPEP Number	N/A

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Index Property	Test Method	Typical	
Thickness	ASTM D6525	0.4 in.	(9 mm)
Mass/Unit Area	ASTM D6566	10.0 oz/sy	(350 g/sm)
Tensile Strength – MD	ASTM D6818	4,400 lbs/ft	(64.2 kN/m)
Tensile Strength – TD	ASTM D6818	3,300 lbs/ft	(48.2 kN/m)
Elongation - MD	ASTM D6818	35%	
Elongation – TD	ASTM D6818	30%	
UV Stability	ASTM D4355	90% @6000 hr	
UV Stability	ASTM D7238	90% @6000 hr	
Resiliency	ASTM D6524	75%	
Light Penetration	ASTM D6567	25%	
Biomass Improvement	ASTM D7322	300%	
Specific Gravity	ASTM D792	57.4 lb/ft ³	(0.92 g/cm ³)
Porosity	ECTC	96%	
Carbon Footprint	GHG*	1.9 kg CO ₂ e/m ²	

Design Parameters		
Property	Unvegetated	Vegetated ³
RUSLE C Factor ²	N/A	N/A
Slope Maximum Gradient ¹	0.5H:1V	0.5H:1V
Permissible Shear Stress ²	2.3 psf	16.0 psf (765 Pa)
Permissible Velocity ²	8.0 fps	25.0 fps (7.6 m/s)
τ_{veg} / τ_{TRM} (HEC-15)	N/A	0.47
Manning's n Roughness (HEC-15)		
τ_{lower}	τ_{mid}	τ_{upper}
0.041	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

*WRI/WBCSD Greenhouse Gas Protocol: Product Life Cycle Accounting and Reporting Standard, 2013.