

LANDLOK® 450 turf reinforcement mat (TRM) features X3® technology that consists of a dense web of interlocking, multi-lobed polypropylene fibers positioned between two biaxially oriented nets and mechanically bound together by parallel stitching with polypropylene thread. The TRM is designed to accelerate seedling emergence, exhibit high resiliency, and possess strength and elongation properties to limit stretching in a saturated condition. Every component of LANDLOK® 450 is stabilized against chemical and ultraviolet degradation which are normally found in a natural soil environment. Furthermore, the TRM contains no biodegradable components.

LANDLOK® 450 conforms to the property values listed below¹ and is manufactured at a Propex facility having achieved ISO 9001:2008 certification. Propex performs internal Manufacturing Quality Control (MQC) tests that have been accredited by the Geosynthetic Accreditation Institute – Laboratory Accreditation Program (GAI-LAP).

PROPERTY	TEST METHOD	ENGLISH	METRIC
ORIGIN OF MATERIALS			
% U.S. Manufactured		100%	100%
PHYSICAL			
Mass/Unit Area ²	ASTM D-6566	10.0 oz/yd ²	339 g/m ²
Thickness ²	ASTM D-6525	0.50 in	12.7 mm
Light Penetration (% Passing) ²	ASTM D-6567	20%	20%
Color	Visual	Green or Tan	
MECHANICAL			
Tensile Strength ²	ASTM D-6818	425 x 350 lbs/ft	6.2 x 5.1 kN/m
Elongation ²	ASTM D-6818	50%	50%
Resiliency ²	ASTM D-6524	90%	90%
Flexibility ²	ASTM D-6575	0.026 in-lb	30,000 mg-cm
ENDURANCE			
UV Resistance % Retained at 1,000 hrs ²	ASTM D-4355	80%	80%
PERFORMANCE			
Velocity (Vegetated) ^{2,3}	Large Scale	18 ft/sec	5.5 m/sec
Shear Stress (Vegetated) ^{2,3}	Large Scale	10 lb/ft ²	479 Pa
Manning's n (Unvegetated) ^{2,4}	Calculated	0.025	0.025
Seedling Emergence ²	ASTM D-7322	409%	409%
ROLL SIZES		8 ft x 140 ft	2.45 m x 42.7 m
		16 ft x 140 ft	4.88 m x 42.7 m
		16 ft x 348.75 ft	4.88 m x 106.3 m

NOTES:

1. The property values listed above are effective 01/22/2020 and are subject to change without notice.
2. Values represent testing at time of manufacture and are shown as typical values.
3. Maximum permissible velocity and shear stress has been obtained through vegetated testing programs featuring specific soil types, vegetation classes, flow conditions, and failure criteria. These conditions may not be relevant to every project nor are they replicated by other manufacturers. Please contact Propex for further information.
4. Calculated as typical values from large-scale flexible channel lining test programs with a flow depth of 6 to 12 inches.