PROPEX Pyramat 75

PROPEX® Pyramat® 75 high performance turf reinforcement mat (HPTRM) is a three-dimensional, lofty, woven polypropylene geotextile designed for erosion control applications on steep slopes and vegetated waterways. Its matrix is composed of monofilament yarns featuring patented technology woven into a uniform configuration of resilient pyramid-like projections. The material exhibits high interlock and reinforcement capacity with soil and root systems and promotes seedling emergence. Pyramat 75 features a proprietary ultraviolet stabilizer package, high tensile strength, and superior hydraulic performance, to provide an expected design life up to 75 years.

It is engineered to mitigate fire risk and increase the resilience of wildfire prone areas using non-halogen fire retardant technology. Pyramat 75 is available in green or tan. Pyramat 75 conforms to the property values listed below[1] and is manufactured at a Solmax facility with ISO 9001:2015 and ISO 14001:2015 certifications. Solmax performs internal Manufacturing Quality Control (MQC) tests that have been accredited by the Geosynthetic Accreditation Institute – Laboratory Accreditation Program (GAI-LAP).

Properties	Test Method	English	Metric
Origin of material			
% U.S. Manufactured		100%	100%
Environmental Impact			
Carbon Footprint	GHG Protocol ISO 14064:2006 PAS2050:2011	2.7 kg CO_2e/m^2	
Physical Properties			
Mass/Unit Area [4]	ASTM D6566	14.0 oz/sy	475 g/m^2
Thickness [2]	ASTM D6526	0.40 in	10.2 mm
Light Pepetration (% Passing) [3]	ASTM D6567	10%	
Color	Visual	Green or Tan	
Mechanical Properties			
Tensile Strength [2]	ASTM D6818	4,000 x 3,000 lb/ft	58.4 x 43.8 kN/m
Elongation [2]	ASTM D6818	40 x 35%	
Resiliency [2]	ASTM D6524	80%	
Flexibility [4]	ASTM D6575	0.534 in-lb	616,154 mg-cm
Endurance			
UV Resistance % Retained at 3,000 hrs [4]	ASTM D4355	90%	
UV Resistance % Retained at 6,000 hrs [4]	ASTM D4355	90%	
UV Resistance % Retained at 10,000 hrs [4]	ASTM D4355	85%	
Fire Resistance			
Burn Rate	FMVSS 302	< 1 ft/min.	
Time to Extinguish	FMVSS 302	< 1 sec.	
Performance			
Velocity (Vegetated) [4, 5]	Large Scale	25 ft/s	7.6 m/s
Shear Stress (Vegetated) [4, 5]	Large Scale	16 lb/ft^2	766 Pa
Manning's n (Unvegetated) [4, 6]	Calculated	0.028	
Seedling Emergence [4]	ASTM D7322	619%	
Roll Sizes		8.5 ft x 120 ft 15.0 ft x 120 ft	2.6 m x 36.6 m 4.6 m x 36.6 m

NOTES:

(1) The property values listed above are effective 05/01/2023 and are subject to change without notice. Values represent testing at time of manufacture.

(2) Minimum average roll values (MARV) are calculated as the typical minus two standard deviations. Statistically, it yields a 97.7% degree of confidence that any samples taken from quality assurance testing will exceed the value reported.

(3) Maximum Average Roll Value (MaxARV), calculated as the typical plus two standard deviations. Statistically, it yields a 97.7% degree of confidence that any sample taken during quality assurance testing will meet to the value reported.

(4) Typical average values shown.

(5) 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 Solmax for further information.

(6) Calculated as typical values from large-scale flexible channel lining test programs with a flow depth of 6 to 12 inches.

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