



# PYRAWALL™

Engineered Vegetated Wall System

## Product Data

PYRAWALL® is an Engineered Wrap-Face Vegetated Solution consisting of two components:

- PYRAMAT® 75 High Performance Turf Reinforcement Mat (HPTRM)
- Fiber-composite internal bracing

PYRAWALL is a reinforced-soil wall and/or steepened slope system that provides permanent erosion protection and mechanical slope stabilization from initial construction. The expected design life of PYRAWALL is up to 75 years because it does not corrode and it has superior UV resistance, strength, and durability in the most demanding environments.



The internal braces are designed to integrate with PYRAMAT 75 HPTRM and provide internal structure during construction to facilitate placing and backfilling of PYRAWALL. The bracing members are designed to interlace through PYRAMAT 75 HPTRM resulting in superior material connection and system performance throughout the project's design life.

The PYRAMAT 75 HPTRM component of PYRAWALL is manufactured at a Propex facility with ISO 9001:2008 certification and has property values listed below<sup>1</sup>. Propex also performs internal Manufacturing Quality Control (MQC) tests that have been accredited by the Geosynthetic Accreditation Institute – Laboratory Accreditation Program (GAI-LAP).



ENGINEERED EARTH ARMORING SOLUTIONS™

[www.propexglobal.com](http://www.propexglobal.com)

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### PYRAMAT 75 HPTRM PROPERTIES

PROPERTY	TEST METHOD	ENGLISH	METRIC
ORIGIN OF MATERIALS			
% U.S. Manufactured		100%	100%
PHYSICAL			
Thickness <sup>2</sup>	ASTM D-6525	0.40 in	10.2 mm
Light Penetration (% Passing) <sup>3</sup>	ASTM D-6567	10%	10%
Color	Visual	Green or Tan	
MECHANICAL			
Tensile Strength <sup>2</sup>	ASTM D-6818	4000 x 3000 lbs/ft	58.4 x 43.8 kN/m
Elongation <sup>2</sup>	ASTM D-6818	40 x 35 %	40 x 35 %
Resiliency <sup>2</sup>	ASTM D-6524	80%	80%
Flexibility <sup>4</sup>	ASTM D-6575	0.534 in-lb	616,154 mg-cm
ENDURANCE			
UV Resistance % Retained at 3,000 hrs <sup>4</sup>	ASTM D-4355	90%	90%
UV Resistance % Retained at 6,000 hrs <sup>4</sup>	ASTM D-4355	90%	90%
PERFORMANCE			
Velocity (Vegetated) <sup>4, 5</sup>	Large Scale	25 ft/sec	7.6 m/sec
Shear Stress (Vegetated) <sup>4, 5</sup>	Large Scale	16 lb/ft²	766 Pa
Manning's n (Unvegetated) <sup>4, 6</sup>	Calculated	0.028	0.028
USACE / CSU Wave Overtopping	Large Scale	USACE Approved	
Seedling Emergence <sup>4</sup>	ASTM D-7322	296%	296%
ROLL SIZES		8.5 ft x 120 ft	2.6 m x 36.6 m

#### NOTES:

1. The property values listed above are effective 01/01/2019 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 Value.
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 Propex for further information.
6. Calculated as typical values from large-scale flexible channel lining test programs



**Propex**  
GEOSOLUTIONS

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