



PROPEX Armormax 75 SS B3

PROPEX® Armormax® 75 SS is an Engineered Earth Armoring Solution™ used to provide permanent erosion protection and surficial slope stability in vegetated and unvegetated applications. It is composed of two components: PROPEX Pyramat® 75 High Performance Turf Reinforcement Mat (HPTRM) and B3 Engineered Earth Anchors. The anchor component is specifically designed and tested for compatibility and performance with Pyramat 75 HPTRM to provide a system solution. Armormax 75 features a proprietary ultraviolet stabilizer package, high tensile strength, superior hydraulic performance, and resistance to corrosion to provide an expected design life up to 75 years.

The Pyramat 75 HPTRM component 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 below¹ and is manufactured at a Solmax facility with ISO 9001:2008 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).

The B3 Anchor model is used for permanent erosion protection applications and has a working load of up to 2,000 lbs. The B3 Anchor consists of an aluminum alloy anchor head, galvanized steel cable, aluminum ferrules, aluminum alloy load locking mechanism, and an aluminum alloy top plate. The bullet nose design of the anchor head allows the anchor to penetrate Pyramat 75 HPTRM resulting in minimal installation damage, while the load bearing plate provides improved connection to the HPTRM.

PROPEX Pyramat 75 HPTRM Properties

| 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 ₂ e/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 Penetration (% 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% | |
| Fire Resistance | | | |
| Burn Rate | FMVSS 302 | < 1 ft/min. | |
| Time to Extinguish | FMVSS 302 | < 1 sec. | |
| Roll Sizes | | 8.5 ft x 120 ft | 2.6 m x 36.6 m |
| | | 15.0 ft x 120 ft | 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.

Solmax is not a design or engineering professional and has not performed any such design services to determine if Solmax's goods comply with any project plans or specifications, or with the application or use of Solmax's goods to any particular system, project, purpose, installation, or specification.



PROPEX Pyramat 75 HPTRM Properties

| Properties | Test Method | English | Metric |
|--|-------------|------------------------|---------|
| Performance | | | |
| Velocity (Unvegetated with Anchors) ^{4,5} | Large Scale | 13 ft/s | 4.0 m/s |
| Velocity (Vegetated) ^{4,5} | Large Scale | 25 ft/s | 7.6 m/s |
| Shear Stress (Unvegetated with Anchors) ^{4,5} | Large Scale | 4.8 lb/ft ² | 230 Pa |
| Shear Stress (Vegetated) ^{4,5} | Large Scale | 16 lb/ft ² | 766 Pa |
| Manning's n (Unvegetated) ^{4,6} | Calculated | 0.028 | |
| USACE / CSU Wave Overtopping | Large Scale | USACE Approved | |
| Seedling Emergence ⁴ | ASTM D7322 | 296% | |

B3 Anchor Properties

| Component | Material | Properties ⁴ | English | Metric |
|---|------------------|---|-------------------------|------------------------|
| Physical | | | | |
| Anchor Head | Aluminum Alloy | Geometry | 7.4 in x 2.4 in x 2 in | 188 mm x 61 mm x 51 mm |
| | | Bearing Area | 14.5 in ² | 94 cm ² |
| Cable Tendon | Galvanized Steel | Diameter | 0.1875 in | 4.8 mm |
| Lower Termination | Aluminum Ferrule | Length | 1 in | 25 mm |
| | | Wall Thickness | 0.1 in | 3 mm |
| Load Bearing Plate | Aluminum Alloy | Diameter | 6.3 in | 160 mm |
| | | Thickness | 0.4 in | 10 mm |
| | | Bearing Area | 20 in ² | 129 cm ² |
| Top Termination | Aluminum Alloy | Circumferential Wedge Grip Assembly to Eliminate Cable Pinch Points | | |
| | | Grip to Cable Contact Surface Area | 0.6 in ² | 3.9 cm ² |
| | | Grip to Cable Contact Ratio | > 80% of Cable Diameter | |
| Performance ⁴ | | | | |
| Ultimate Assembly Strength | | | 2,800 lb | 12.5 kN |
| Ultimate Cable Strength | | | 3,700 lb | 16.5 kN |
| Typical Working Load | | | 800 – 2000 lb | 3.6 – 8.9 kN |
| Embedment Depth | | | 6 – 12 ft | 1.8 – 3.7 m |
| Anchor Head Impact Strength | | | 34,000 lb | 151 kN |
| Anchor Head Impact Fatigue | | | > 12,000 Loading Cycles | |
| Load Bearing Plate Punching Shear | | | 2,950 lb | 13.1 kN |
| Load Bearing Plate / HPTRM Pull-Through | | | 2,800 lb | 12.5 kN |

NOTES:

⁽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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