

Enkamat 7010

R²M / Root Reinforcement Mat

Description

Enkamat[®] 7010 is a three-dimensional turf reinforcement mat (TRM) made of continuous monofilaments fused at their intersections. Ninety-five (95%) percent of the Enkamat is open and available for soil, mulch and root interaction, creating the most effective root reinforcement mat (R²M) available. Enkamat is manufactured from nylon to eliminate the buoyancy factor associated with submerged conditions and provides permanent TRM protection in vegetated channels as well as on slopes.

Recommended Applications

- Permanent erosion control for vegetated channels with expected shear stresses ≤ 8 psf.
- Permanent erosion control for slight to moderate slopes ($\leq 2.5H:1V$).
- Support and enhance performance of ecosystem plants.
- Substrate for hydraulically applied Bonded Fiber Matrix (BFM) and other mulches for erosion control applications where low water flow and low to moderate shear stresses are expected.

Technical Data

| Mechanical Properties | Test Method | Units | Typical Roll Value | |
|-----------------------|-------------------------------------|--|--------------------|----------|
| | | | MD | CD |
| Tensile Strength | ASTM D 5035 (modified) | kN/m (lbs/ft) | 2.3 (160) | 1.2 (80) |
| Thickness | ASTM D 5199 | mm (in) | 10 (0.4) | |
| Mass/Unit Area | ASTM D 5261 | g/m ² (oz/yd ²) | 271 (8.0) | |
| UV Stability | ASTM D G53 / ASTM D 5035 (modified) | % strength retained | 80 | |

| Performance Properties | Test Method | Units | Typical Roll Value |
|---------------------------------|-------------------------|--|--------------------|
| Permissible Velocity | | | |
| Product Only | Flume test ¹ | m/s (ft/s) | 6.1 (20) |
| 30 minute, vegetated | Flume test ¹ | m/s (ft/s) | 5.8 (19) |
| 50 hour, vegetated | Flume test ¹ | m/s (ft/s) | 4.2 (14) |
| Permissible Shear Stress | | | |
| Product Only | Flume test ¹ | kN/m ² (lbs/ft ²) | 0.32 (6.7) |
| 30 minute, vegetated | Flume test ¹ | kN/m ² (lbs/ft ²) | 0.38 (8.0) |
| 50 hour, vegetated | Flume test ¹ | kN/m ² (lbs/ft ²) | 0.29 (6.0) |

1. Flume test performed at independent laboratory—data and details available upon request.

Packaging Data

| Physical Properties | Units | Nominal Value | |
|--|-----------------------------------|----------------------------|----------------------------|
| Roll Dimensions <i>[width x length]</i> | m (ft) | 0.99 x 152 (3.25 x 500) | 1.93 x 27.5 (6.33 x 90) |
| Roll Area | m ² (yd ²) | 150 (180) | 53 (63.3) |
| Estimated Roll Diameter | cm (in) | 111 (44) | 48 (19) |
| Estimated Roll Weight | kg (lb) | 82 (180) | 18 (39) |

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