

# Enkamat 7220

## R<sup>2</sup>M / Root Reinforcement Mat

### Description

Enkamat<sup>®</sup> 7220 is a three-dimensional turf reinforcement mat (TRM) made of heavy nylon monofilaments fused at their intersections, combined with a “flat” two-dimensional layer on the bottom. Ninety-five (95%) percent of the Enkamat is open and available for soil, mulch and root interaction, creating the most effective root reinforcement mat (R<sup>2</sup>M) 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  $\leq 10$  psf.
- Permanent erosion control for slight to moderate slopes ( $\leq 2H:1V$ ).
- 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)	2.7 (190)	4.1 (280)
Thickness	ASTM D 5199	mm (in)	16.5 (0.65)	
Mass/Unit Area	ASTM D 5261	g/m <sup>2</sup> (oz/yd <sup>2</sup> )	400 (11.8)	
UV Stability	ASTM D G53 / ASTM D 5035 (modified)	% strength retained	80	

Performance Properties	Test Method	Units	Typical Roll Value
<b>Permissible Velocity</b>			
Product Only	Flume test <sup>1</sup>	m/s (ft/s)	N/A
30 minute, vegetated	Flume test <sup>1</sup>	m/s (ft/s)	5.8 (19)
50 hour, vegetated	Flume test <sup>1</sup>	m/s (ft/s)	4.2 (14)
<b>Permissible Shear Stress</b>			
Product Only	Flume test <sup>1</sup>	kN/m <sup>2</sup> (lbs/ft <sup>2</sup> )	N/A
30 minute, vegetated	Flume test <sup>1</sup>	kN/m <sup>2</sup> (lbs/ft <sup>2</sup> )	0.48 (10)
50 hour, vegetated	Flume test <sup>1</sup>	kN/m <sup>2</sup> (lbs/ft <sup>2</sup> )	0.38 (8)

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 60 (3.25 x 197)	1.93 x 60 (6.33 x 197)
Roll Area	m <sup>2</sup> (yd <sup>2</sup> )	59 (71)	116 (139)
Estimated Roll Diameter	cm (in)	112 (44)	112 (44)
Estimated Roll Weight	kg (lb)	25 (55)	52 (114)

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