

Enkamat 7003

R²M / Root Reinforcement Mat

Description

Enkamat[®] 7003 is a lightweight 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 ≤ 6 psf.
- Permanent erosion control for slight to moderate slopes ($\leq 3.5H:1V$).
- 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)	2.2 (150)	0.8 (55)
Thickness	ASTM D 5199	mm (in)	7.5 (0.3)	
Mass/Unit Area	ASTM D 5261	g/m ² (oz/yd ²)	170 (5.0)	
UV Stability	ASTM D G53 / ASTM D 5035 (modified)	% strength retained	80	

Performance Properties	Test Method	Units	Typical Roll Value	
			MD	CD
Permissible Velocity				
Product Only	Flume test ¹	m/s (ft/s)	N/A	
30 minute, vegetated	Flume test ¹	m/s (ft/s)	5.2 (17)	
50 hour, vegetated	Flume test ¹	m/s (ft/s)	3.6 (12)	
Permissible Shear Stress				
Product Only	Flume test ¹	kN/m ² (lbs/ft ²)	N/A	
30 minute, vegetated	Flume test ¹	kN/m ² (lbs/ft ²)	0.29 (6.0)	
50 hour, vegetated	Flume test ¹	kN/m ² (lbs/ft ²)	0.24 (5.0)	

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

Packaging Data

Physical Properties	Units	Nominal Value	
Roll Dimensions [width x length]	m (ft)	0.99 x 152 (3.25 x 500)	1.93 x 152 (6.33 x 500)
Roll Area	m ² (yd ²)	150 (180)	294 (352)
Estimated Roll Diameter	cm (in)	N/A	N/A
Estimated Roll Weight	kg (lb)	26 (57)	55 (120)

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