

Enkamat® 7018

Bonar Civil Products — TRM

Description

Enkamat® 7018 is a 3-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 ($\leq 1H:1V$).
- Support and enhance hydraulic and agronomic performance of ecosystem plants.
- Excellent substrate for hydraulically applied mulches for application where calculated hydraulic forces exceed the threshold of the mulch itself and/or unreinforced vegetation.
- Meets requirements for FHWA FP-03 Type 5B TRM

Technical Data

Mechanical Properties	Test Method	Units	MARV Roll Value
Tensile Strength	ASTM D 6818	kN/m (lbs/ft)	2.3 (160)
Thickness	ASTM D 6525	mm (in)	15.2 (0.6)
Mass/Unit Area	ASTM D 6566	g/m ² (oz/yd ²)	270 (8)
Resiliency	ASTM D 6524	%	>80
UV Stability	ASTM D 4355	% strength retained	80 @ 2000 hr
Performance Properties	Test Method	Units	Typical Roll Value
Permissible Velocity			
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			
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)
Manning's n Range ²	Flume test ¹		0.022—0.042

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

2. Depending on vegetation type and height, use engineering field experience and examine a range of Manning's n values during design.

Packaging

Property	Units	Nominal Value
Roll Dimensions [width x length]	m (ft)	2.4 X 34.3 (8.0 X 112.5)
Roll Area	m ² (yd ²)	83.6 (100)
Estimated Roll Diameter	m (in)	0.6 (24)
Estimated Roll Weight	kg (lb)	20.4 (45)
Color		Black

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