ECTC Classification	Slope Application Maxi- mum Gradient	Product Description				
5B	1:1 (H:V)	Turf Reinforcement Mat				

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			Performance Test	Performance Test		Index Value at Time of Manufacture					
			Unvegetated Shear Stress b, c, d	Vegetated Shear Stress ^{c, d, e, f}	Seedling Emergence	Tensile Strength MD d,f	Tensile Strength TD ^{d,f}	Material Mass / Unit Area ^d	Thickness ^d	UV Stability d,f	
Product Name	Company Name	Material Composition	Typical ASTM D6460	Typical ASTM D6460	<i>Typical</i> ASTM D7322	Typical ASTM D6818	Typical ASTM D6818	Typical ASTM D6566	Typical ASTM D6525	Typical ASTM D4355	
Turf Reinforcement Mat	n/a	A product composed of UV-stabilized non-degradable synthetic fibers, filaments, nets, wire mesh and/or other elements, processed into a permanent, three-dimensional matrix which may be supplemented with degradable components.	≥ 2.0 lbs/ft² (96 Pa)	≥ 8.0 lbs/ft² (383 Pa)	<u>≥</u> 250 %	≥ 175 lbs/ft (>2.6 kN/m)	≥ 175 lbs/ft (>2.6 kN/m)	$\geq 8.0 \text{lbs/yd}^2$ ($\geq 271 \text{g/m}^2$)	≥ 0.25 in (<u>></u> 6.35 mm)	.≥ 80% @ 500 hrs	
Recyclex TRM-V	American Excelsior Company	Synthetic TRM	3.32 lbs/ft ²	8 lbs lbs/ft ²	432 %	265 lbs/ft	194 lbs/ft	0.5 lbs/yd²	0.294 in	80	
TriNet Straw/ Coconut	American Excelsior Company	Biocomposite TRM	3.2 lbs/ft ²	10 lbs/ft²	<u>></u> 250 %	553 lbs/ft	439 lbs/ft	0.824 lbs/yd ²	0.344 in	90	
Curlex Enforcer	American Excelsior Company	Biocomposite TRM	3.25 lb/ft ²	10 lbs/ft	486 %	612 lbs/ft	460 lbs/ft	0.98 lbs/yd²	0.419 in	90	
Recyclex	American Excelsior Company	Synthetic TRM	3.38 lb/ft ²	11 lbs/ft	525 %	387 lbs/ft	340 lbs/ft	0.63 lbs/yd ^s	0.37 in	90	
TriNet Coconut	American Excelsior	Biocomposite TRM	3.2 lb/ft ²	12 lbs/ft	<u>></u> 250 %	712 lbs/ft	703 lbs/ft	0.69 lbs/yd ²	0.264 in	90	

a. For material Types 5.E and 5.F, property values tested per ASTM 6818 and D6525 are reported as minimum average roll values (MARVs). MARVs 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.

NOTE: TRMs are typically used in hydraulic applications, such as high flow ditches and channels, steep slopes, stream banks, and shorelines, where erosive forces may exceed the limits of natural, unreinforced vegetation or in areas where limited vegetation establishment is anticipated.

b. Required minimum shear stress TRM (unvegetated) can sustain without physical damage or excess erosion (> 12.7 mm (0.5 in) soil loss) during successive, minimum 30 minute flow events in large scale testing.

c. Acceptable large-scale testing protocol may include ASTM D6460, or other independent testing deemed acceptable by the engineer. Large scale performance testing typically involved limited soil types and vegetative stands, therefore it is recommended that an appropriate factor of safety be used in design and product selection (see Guidance Document for further information).

d. Typical values are calculated as the average value. Statistically, it yields a 50 % degree of confidence that any samples taken from quality assurance testing will exceed the value reported.

e. Required minimum shear stress TRM (fully vegetated) can sustain without physical damage or excess erosion (> 12.7 mm (0.5 in.) soil loss) during successive, minimum 30 minute flow events in large scale testing.

f. For TRMs containing degradable components, property values must be obtained on the non-degradable portion of the matting alone.

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5B	1:1 (H:V)	Turf Reinforcement Mat





			Performance Test Performance Tes	Performance Test		Index Value at Time of Manufacture					
	Company	Material	Unvegetated Shear Stress b, c, d Typical ASTM D6460	Vegetated Shear Stress c, d, e, f Typical ASTM D6460	Seedling Emergence Typical ASTM D7322	Tensile Strength MD d,f Typical ASTM D6818	Tensile Strength TD d,f Typical ASTM D6818	Material Mass / Unit Area ^d Typical ASTM	Thickness ^d Typical ASTM	UV Stability d,f Typical ASTM	
Product Name	Name	Composition						D6566	D6525	D4355	
Turf Reinforcement Mat	n/a	A product composed of UV-stabilized non-degradable synthetic fibers, filaments, nets, wire mesh and/or other elements, processed into a permanent, three-dimensional matrix which may be supplemented with degradable components.	≥ 2.0 lbs/ft² (96 Pa)	≥ 8.0 lbs/ft² (383 Pa)	<u>≥</u> 250 %	≥ 175 lbs/ft (>2.6 kN/m)	≥ 175 lbs/ft (>2.6 kN/m)	≥ 8.0 lbs/yd² (≥ 271 g/m²)	≥ 0.25 in (<u>></u> 6.35 mm)	. <u>></u> 80% @ 500 hrs	
TriNet Curlex	American Excelsior Company	Biocomposite TRM	3.2 lb/ft²	13 lbs/ft ²	≥ 250 %	770.4 lbs/ft	802.8 lbs/ft	0.976 lbs/yd ²	0.304	90	
TriNet Recyclex	American Excelsior Company	Synthetic TRM	3.2 lb/ft ²	14 lbs/ft ²	≥ 250 %	835.2 lbs/ft	819.6 lbs/ft	1.204 lbs/yd ²	0.529	90	
ECP-2 10 oz	East Coast Erosion Control	Polypropylene fibers	2.3 lbs/ft ²	10 lbs/ft ²	≥ 482 %	370 lbs/ft ²	315 lbs/ft ²	10 lbs/ft ²	0.4 in	82 %	
ECP-2	East Coast Erosion Control	Polypropylene fibers	2.6 lbs/ft ²	12 lbs/ft ²	469 %	400 lbs/ft ²	400 lbs/ft ²	12 lbs/ft ²	0.4 in	82 %	
ECSC-3	East Coast Erosion Control	70 % straw 30 % coconut	3.0 lbs/ft ²	10 lbs/ft ²	497 %	728 lbs/ft ²	632 lbs/ft ²	14 lbs/ft ²	0.39 in	80 %	

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ECC-3	East Coast Erosion Control	Coconut fibers	3.2 lbs/ft ²	12 lbs/ft²	364 %	802 lbs/ft ²	643 lbs/ft ²	13.25 lbs/ft ²	0.34 in	98 %	
ECP-3	East Coast Erosion Control	Polypropylene fibers	3.8 lbs/ft ²	14 lbs/ft²	426 %	1232 lbs/ft ²	1192 lbs/ft²	19 lbs/ft²	0.41 in	100 %	
T-RECS	East Coast Erosion Control	Polypropylene	2.67 lbs/ft ²	15 lbs/ft ²	636 %	3000 lbs/ft ²	3000 lbs/ft ²	8.2 lbs/ft ²	0.45 in	91 %	

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