

Product Evaluation

RE: Review of TriNet Straw Coconut Turf Reinforced Mat (TRM)

PRODUCT

TriNet Straw Coconut is a Turf Reinforced Mat (TRM) manufactured and distributed in Alberta by American Excelsior Company located in Rice Lake, Wisconsin, USA. Website: <http://americanexcelsior.com/>

VENDOR CLAIMS AND INFORMATION

CLAIMS

TriNet Straw/Coconut has a design soil loss ratio (event-based RUSLE C factor) of .026 and is typically suitable for slopes up to 0.5H:1V. TriNet Straw/Coconut is rated for channel flows up to 15.0 ft/s (4.57 m/s) and 10.0 lb/ft² (480 Pa) shear stress. TriNet Straw/Coconut shall be manufactured in the U.S.A.

DESCRIPTION

TriNet Straw/Coconut is a three dimensional biocomposite Turf Reinforcement Mat (TRM) that consists of a blend of 70% straw and 30% coconut fibers as a matrix material. The straw fibers used in the product are the finest available agricultural straw with 75% four-inch fibers or greater fiber length. The blended fibers are evenly distributed throughout the entire area of the TRM. The top, middle, and bottom nets of each TRM are stitched together forming a permanent three dimensional TRM. Nets are made of UV stabilized Polypropylene.

POTENTIAL USAGE

Erosion control at slopes up to 0.5H:1V and channels with flow up to 4.57 m/s and 480 Pa shear stress.

STANDARDS

Thickness	ASTM D 6525,	Light Penetration	ASTM D 6567
Resiliency	ASTM D 6524,	Mass per Unit Area	ASTM D 6566
Tensile Strengths	ASTM D 6818,	Elongation	ASTM D 6818
UV Stability	ASTM D 4355,	Stiffness	ASTM D6575
Bench-Scale Rain Splash	ASTM D 7101,	Bench-Scale Shear	ASTM D 7207
Germination Improvement	ASTM D 7322		

ALBERTA TRANSPORTATION COMMENTS

EXPERIENCE

Alberta Transportation has experience with similar products from various manufacturers.

APPLICABLE STANDARDS

Alberta Transportation standard for Rolled Erosion Control Products (RECP) is documented in AT Products List and Erosion and Sediment Control Manual BMP#13.

RECOMMENDATIONS

TriNet Straw/Coconut Turf Reinforced Mat (TRM) be listed as a Potential Product under Alberta Transportation Products List, Erosion and Sediment Control Systems – Permanent RECPS – Turf Reinforcement Mats (TRM) – Type C – Proprietary. Final acceptance as a proven product will be based on field performance.

TRIAL PROJECTS

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