

RE: Review of Erosion Control Composite Turf Reinforcement Mats – North American Green SC250

PRODUCT

Composite turf reinforcement mats (C-TRM) – North American Green SC250. It is distributed by Nilex Inc. of Edmonton.

VENDOR CLAIMS AND INFORMATION

CLAIMS:

The composite turf reinforcement mats are used to prevent erosion of soil on side slopes, channels and ditches.

DESCRIPTION:

The SC250 composite turf reinforcement mats shall be a machine-produced mat of 70% straw / 30% coconut fibre matrix incorporated into a permanent 3-dimensional netting structure. The matrix shall be evenly distributed across the entire width of the matting and stitch bonded between UV stabilized top and bottom nets with 1.27 x 1.27 cm openings and a super heavy duty UV stabilized, dramatically corrugated (crimped) intermediate netting with 1.27 x 1.27 cm mesh size. The blanket shall be sewn together on 3.81 cm centres (50 stitches/roll width) with UV stable polypropylene thread. The blanket shall be manufactured with a coloured line or thread stitched along both outer edges (5 to 12.5 cm) to ensure proper material overlapping.

POTENTIAL USAGE:

The blankets or mats may replace heavy armour such as rock riprap.

STANDARDS:

North American Green has slope and channel design data and physical specifications for the SC250.
ECTC Guidelines Light penetration
ASTM D5199/ECTC Thickness
ASTM D1388/ECTC Stiffness
ASTM D5261 Mass per unit area
ASTM D4355 UV stability
ASTM D5035 Tensile strength, Elongation

ALBERTA TRANSPORTATION COMMENTS

EXPERIENCE:

Alberta Transportation have tried a large variety of erosion control mats in the past and might have some experience with this product but there is no documentation of its actual use and performance.

APPLICATION STANDARDS:

Alberta Transportation have a performance specification for this product.

RECOMMENDATIONS:

North American Green SC250 for erosion control be listed as a Proven Product under Alberta Transportation Product List, Erosion Control Systems, Rolled Erosion Control Blanket – Composite Turf Reinforcement Mats – Proprietary, based on the information provided.

TRIAL PROJECTS

Grant MacEwan Boulevard (H39, Leduc); 108 Street/140 Ave (Edmonton); Mariana Lake (Ft. McMurray)

Fred Cheng

cc New Product Evaluation Standing Committee – Roger Skirrow