

**Product Evaluation**

Product ID: 8133-3-3  
Initiation Date: September 5, 2002  
Revision Date: November 20, 2007

**RE: Review of Erosion Control Composite Turf Reinforcement Mats – North American Green C350**

**PRODUCT**

Composite turf reinforcement mats (C-TRM) – North American Green C350. 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 C350 composite turf reinforcement mat shall be a machine-produced mat of 100% 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 a heavy duty UV stabilized bottom net with 1.27 x 1.27 cm openings, a super heavy duty UV stabilized, dramatically corrugated (crimped) middle netting with 1.27 x 1.27 cm openings, and a heavy duty stabilized top net with 1.27 x 1.27 cm openings. The corrugated netting shall form prominent closely spaced ridges across the entire width of the mat. The three nettings shall be stitched together on 3.81 cm centres with UV stabilized polypropylene thread to form a permanent 3-dimensional structure. The blanket shall be manufactured with a coloured 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 C350.  
ECTC Guidelines Porosity, Open volume per unit area, Light penetration  
ASTM D5199/ECTC Thickness  
ASTM D1777/ECTC Resiliency  
ASTM D1388/ECTC Stiffness  
ASTM D792 Density  
ASTM D5261 Mass per unit area  
ASTM D5035 Tensile strength, Elongation

**ALBERTA INFRASTRUCTURE and TRANSPORTATION COMMENTS**

**EXPERIENCE:**

Alberta Infrastructure and 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 Infrastructure and Transportation have a performance specification for this product.

**RECOMMENDATIONS:**

North American Green C350 for erosion control be listed as a Proven Product under Alberta Infrastructure and Transportation Product List, Erosion Control Systems, Rolled Erosion Control Blanket – Composite Turf Reinforcement Mats – Proprietary, based on the information provided.

**TRIAL PROJECTS**

AT7251/06 Peace River

Fred Cheng

cc New Product Evaluation Standing Committee – Roger Skirrow