

## Product Evaluation

### RE: Review of Futerra R45 High Performance – Turf Reinforcement Mat (HP-TRM)

#### **PRODUCT**

Futerra R45 HP-TRM is a permanent rolled erosion control product manufactured by Bonar at Enka, NC and it is distributed by Profile Products LLC, Buffalo Grove, Illinois. Product web link: [WWW.profileeves.com](http://WWW.profileeves.com)

#### **VENDOR CLAIMS AND INFORMATION**

##### **CLAIMS:**

Futerra R45 incorporates a manufacturing process that integrates a high tenacity polyester geogrid within thermally fused and entangled, three-dimensional nylon monofilaments to create a homogeneous, high performance turf reinforcement mat (HP-TRM). This matrix develops high strength at very low elongation and when combined with Percussive Earth Driven Anchors creates Anchor Reinforced Vegetation Solution (ARVS). The high profile Futerra R45 matrix also provides a high friction, interlocking "grip layer" under vegetation that can withstand light vehicle traffic and periodic mowing on slopes up to 3H: 1V.

##### **DESCRIPTION:**

Futerra R45 HP-TRM has synthetic components of polyester grids fused with nylon mesh. Grid component of Futerra R45 HP-TRM is also called Futerra 7020 TRM.

##### **POTENTIAL USAGE:**

Slopes 3H: 1V or flatter and ditches / channels with water velocity not exceeding 9.1 m/s and shear stress of 960 Pa at vegetated condition.

##### **STANDARDS:**

ASTM D6818 Tensile Strength and elongation, ASTM D6566 Mass / Area, ASTM D6525 Thickness, ASTM D4355 UV Stability, ASTM D6460 RECP Performance in Channel

#### **ALBERTA TRANSPORTATION COMMENTS**

##### **EXPERIENCE:**

Alberta Transportation has some experience with RECP - TRM.

##### **APPLICATION 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:**

Futerra R45 HP-TRM be listed as a Proven Product under Alberta Transportation Products List, Erosion and Sediment Control Systems – Permanent RECPS – Turf Reinforcement Mats (TRM) – Type C – Proprietary, based on the information provided.

#### **TRIAL PROJECTS**

107b Avenue NW and Hardistry Drive, Edmonton slope towards the North Saskatchewan River (where sewer pipe is buried); Product Application Date: October 16, 2017

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